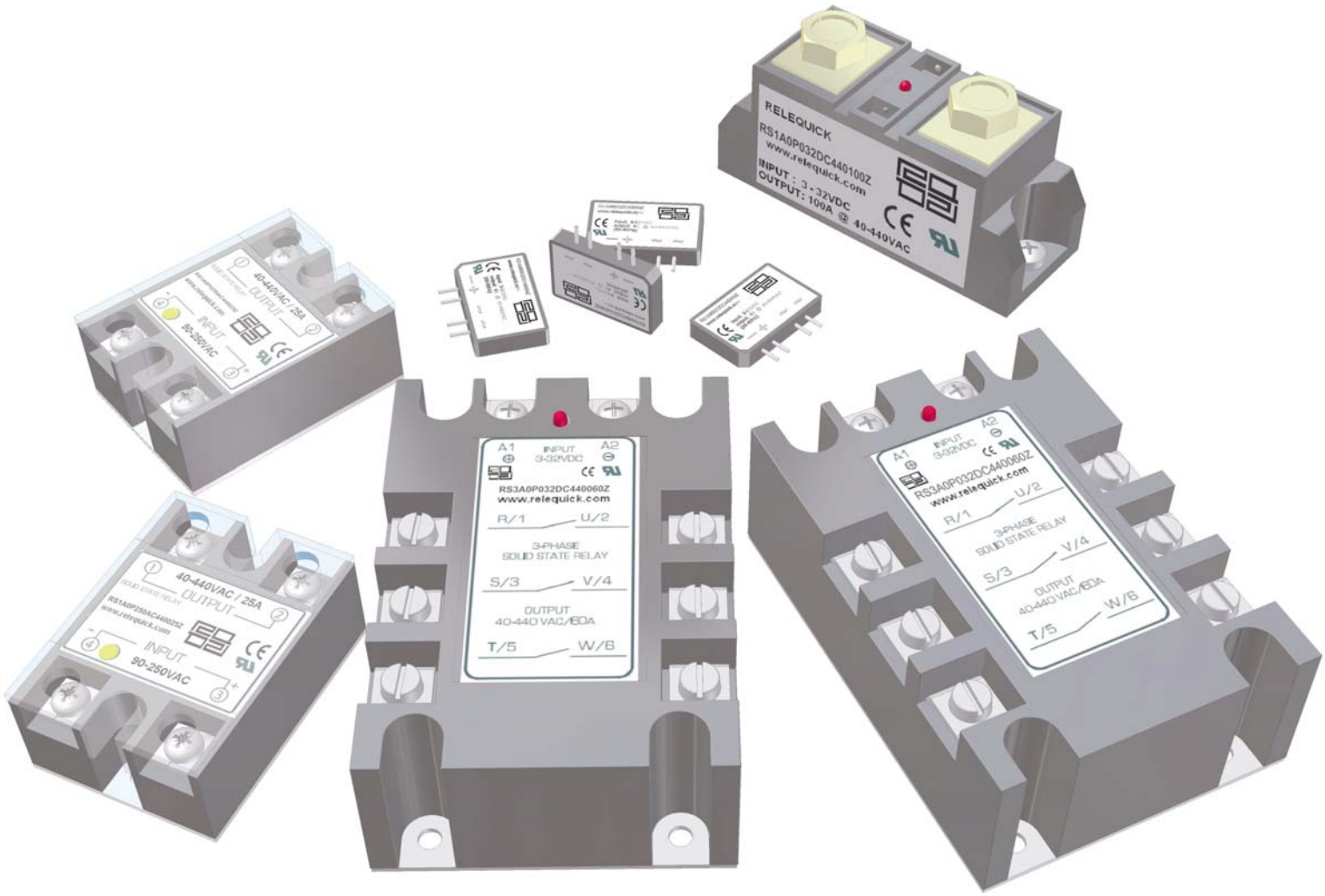
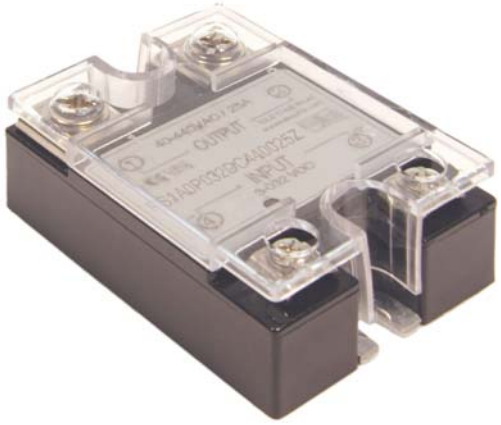
RELEQUICK



SOLID STATE RELAYS

Single phase SSR (AC load & zero crossing)



» Zero crossing AC solid state relay.
» 2 input ranges: 3-32 VDC and 90-280 VAC.
» Maximum load current (AC1 at 25° C): 25, 60, 80, 100A.
» Operational ratings: 40 - 480 VAC.
» Frequency range: 47- 63 Hz.
» Maximum non-repetitive peak voltage: 1,200 Vp.
» LED indicator.
» Clip on protective cover for greater safety (IP 20).

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
Yes	3 - 32 VDC	40 - 440 VAC	25 A	RS1A0P032DC440025Z
			60 A	RS1A0P032DC440060Z
			80 A	RS1A0P032DC440080Z
		40 - 480 VAC	100 A	RS1A0P032DC480100Z
	90 - 250 VAC	40 - 440 VAC	25 A	RS1A0P250AC440025Z
			60 A	RS1A0P250AC440060Z
			80 A	RS1A0P250AC440080Z
	90 - 280 VAC	40 - 480 VAC	100 A	RS1A0P280AC480100Z

Specifications

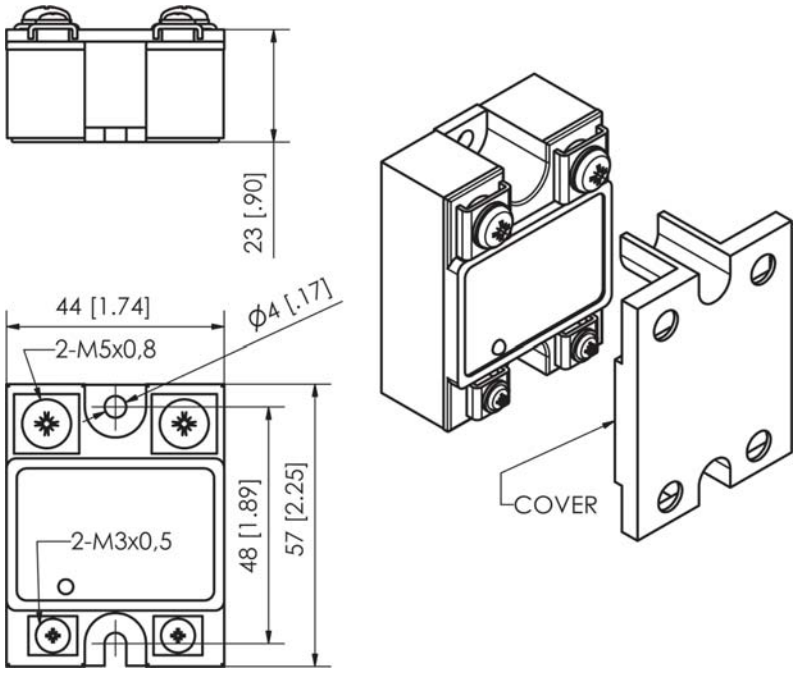
GENERAL SPECIFICATIONS	VDC input		VAC input	
Dielectric insulation (between input & output)	2,500 VAC			
Operating temperature	-25 to 70° C	-30 to 80° C	-25 to 70° C	-30 to 80° C
Storage temperature	-35 to 85° C	-35 to 85° C	-35 to 85° C	-35 to 85° C
Rth junction to case	2.5° C/W (25 A) 0.65° C/W (60 A) 0.5° C/W (80 A)	0.3° C/W	2.5° C/W (25 A) 0.65° C/W (60 A) 0.5° C/W (80 A)	0.3° C/W
Ambient humidity	Operating: up to 85 %			
CE marking	Yes			

INPUT SPECIFICATIONS	VDC input		VAC input	
Control voltage range	3 - 32 VDC		90 - 250 VAC	90 - 280 VAC
Input current (maximum)	10/16 mA @= 5 V/24 V	13/16 mA @= 5 V/24 V	29 mA @= 220 VAC	
Pick-up voltage	1.9 VDC		70 VAC	
Drop-out voltage	1.9 VDC		70 VAC	
Maximum reverse voltage	32 VDC		-	
Max. response time pick-up	½ cycle		1 cycle	
Max. response time drop-out	½ cycle		2 cycles	

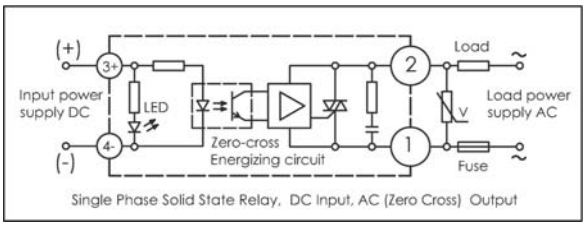
OUTPUT SPECIFICATIONS	VDC input		VAC input	
Maximum load current (AC51 @ Ta = 25° C) (AC53a @ Ta = 25° C)	 25, 60, 80 A 5, 15, 18 A	 100 A 20 A	 25, 60, 80 A 5, 15, 18 A	 100 A 20 A
Load voltage range	40 - 440 VAC	40 - 480 VAC	40 - 440 VAC	40 - 480 VAC
Frequency range	50 - 60 Hz	47 - 63 Hz	50 - 60 Hz	47 - 63 Hz
Max. non-repetitive peak voltage	930 Vp	1,200 Vp	930 Vp	1,200 Vp
Max. non-repetitive peak current (t=10ms)	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,100 Ap	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,100 Ap
Maximum off state leakage current	10 mA	8 mArms	10 mA	8 mArms
Minimum off state dv / dt	200 V / µseg			
Maximum on state voltage	1.6 VAC			
Minimum load current	0.1 A			
I^2t (10 ms) (orientative data)	625 A^2s (25 A) 2,025 A^2s (60 A) 4,225 A^2s (80 A) 6,050 A^2s (100 A)			

HOUSING SPECIFICATIONS	VDC input		VAC input	
Dimensions (L x W x H mm)	60 x 45 x 22	58 x 44 x 23	60 x 45 x 22	58 x 44 x 23
Weight	150 g maximum			
Baseplate	Aluminum, nickel-plated			
Control terminal (M3x6) torque	1.2 Nm			
Power terminal (M5x9) torque	2.4 Nm			

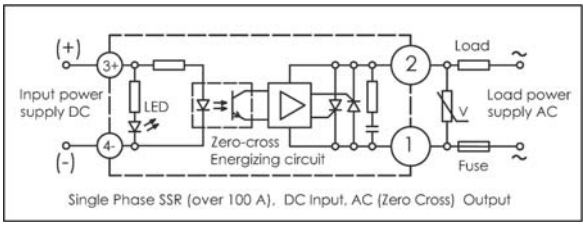
Dimensions



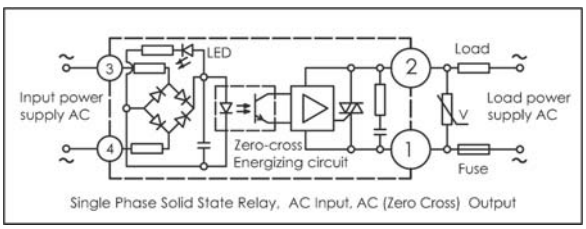
Diagrams



Single Phase Solid State Relay, DC Input, AC (Zero Cross) Output



Single Phase SSR (over 100 A), DC Input, AC (Zero Cross) Output

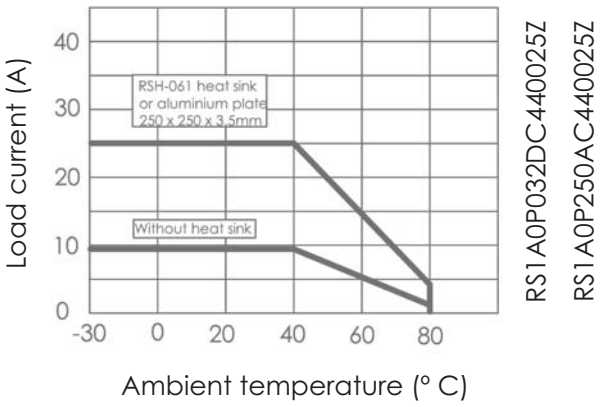


Single Phase Solid State Relay, AC Input, AC (Zero Cross) Output

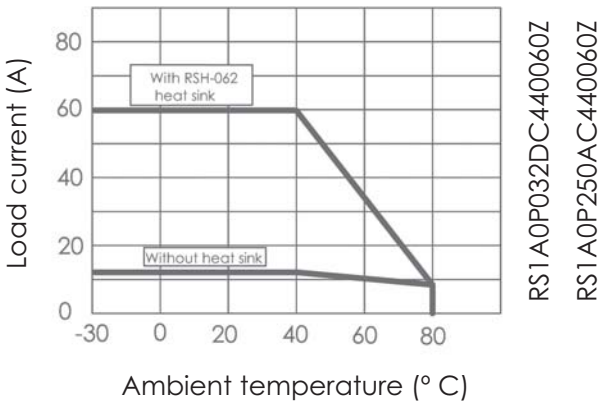
Single phase SSR (AC load & zero crossing)

Load current vs. ambient temperature

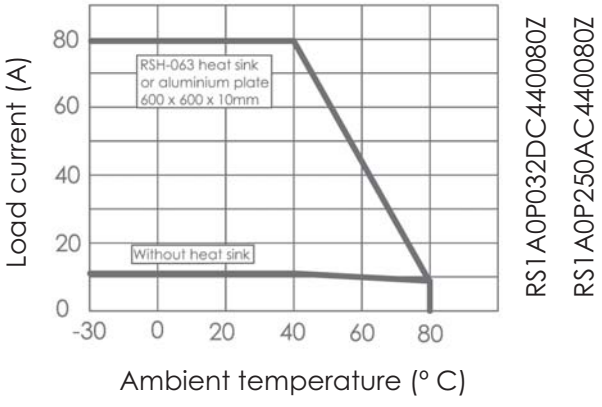
Single phase relay - 25 A



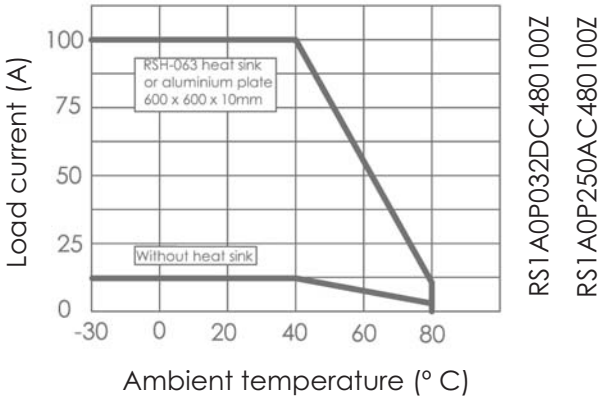
Single phase relay - 60 A



Single phase relay - 80 A



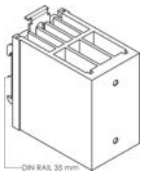
Single phase relay - 100 A

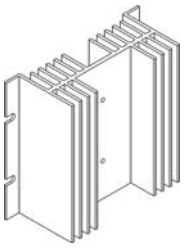


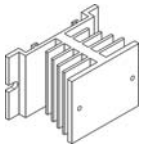
Heat sinks

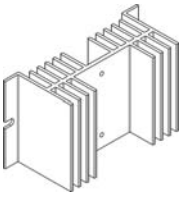
Reference	Output current	Dimensions	Relays to be used with
RSH-059 (DIN-rail)	<= 20 A	44 x 75 x 70	RS1A0P032DC440025Z RS1A0P250AC440025Z
RSH-060	<= 20 A	80 x 50 x 50	RS1A0P032DC440025Z RS1A0P250AC440025Z
RSH-061	<= 40 A	125 x 70 x 50	RS1A0P032DC440025Z RS1A0P250AC440025Z
RSH-062	<= 60 A	125 x 115 x 50	RS1A0P032DC440060Z RS1A0P250AC440060Z
RSH-063	<= 100 A	120 x 80 x 50	RS1A0P032DC440080Z RS1A0P250AC440080Z RS1A0P032DC440100Z RS1A0P280AC480100Z

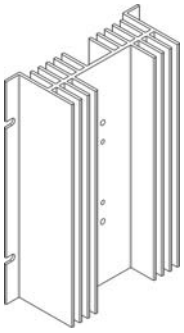
Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.


RSH-059

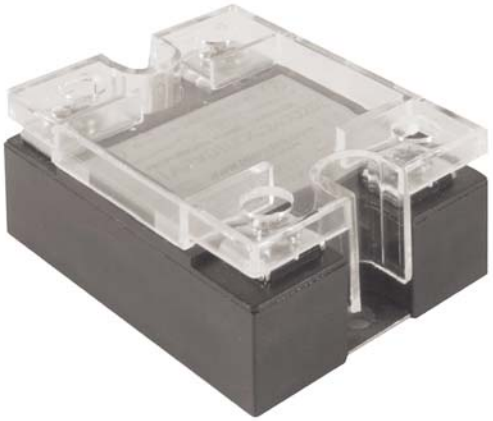

RSH-062


RSH-060


RSH-061


RSH-063

Single phase SSR (AC load & instant switching)



» Instant switching AC solid state relay.
» 2 input ranges: 3-32 VDC and 90-280 VAC.
» Maximum load current (AC1 at 25° C): 25, 60, 80, 100A.
» Operational ratings: 40 - 480 VAC.
» Frequency range: 47- 63 Hz.
» Maximum non-repetitive peak voltage: 1,200 Vp.
» LED indicator.
» Clip on protective cover for greater safety (IP 20).

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
No	3 - 32 VDC	40 - 480 VAC	25 A	RS1A0P032DC480025R
			60 A	RS1A0P032DC480060R
			80 A	RS1A0P032DC480080R
			100 A	RS1A0P032DC480100R
	90 - 280 VAC		25 A	RS1A0P280AC480025R
			60 A	RS1A0P280AC480060R
			80 A	RS1A0P280AC480080R
			100 A	RS1A0P280AC480100R

Specifications

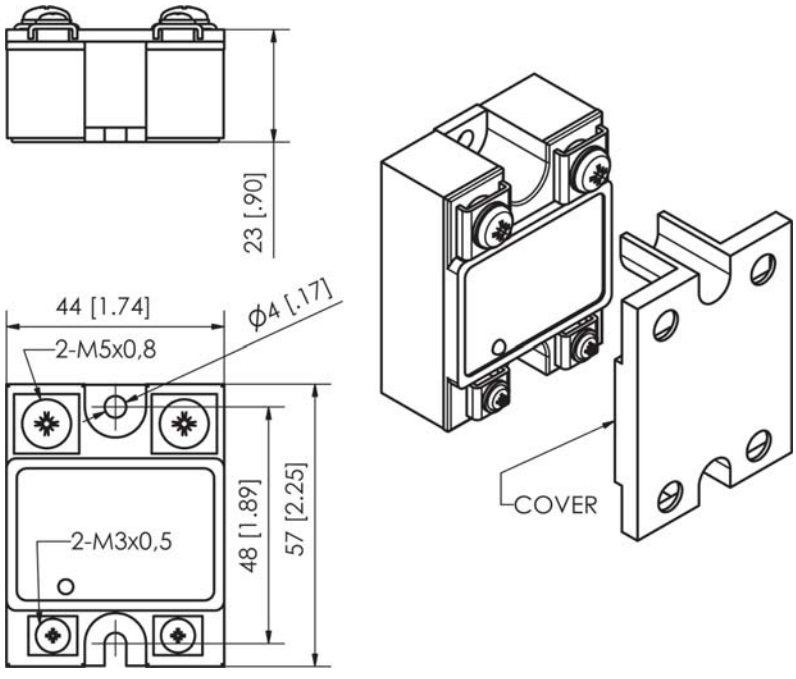
GENERAL SPECIFICATIONS	VDC input		VAC input	
Dielectric insulation (between input & output)	2,500 VAC			
Operating temperature	-30 to 80° C			
Storage temperature	-35 to 85° C			
Rth junction to case	2.5° C/W (25 A) 0.65° C/W (60 A) 0.5° C/W (80 A)	0.3° C/W	2.5° C/W (25 A) 0.65° C/W (60 A) 0.5° C/W (80 A)	0.3° C/W
Ambient humidity	Operating: up to 85 %			
CE marking	Yes			

INPUT SPECIFICATIONS	VDC input	VAC input
Control voltage range	3 - 32 VDC	90 - 280 VAC
Input current (maximum)	13/16 mA @= 5 V/24 V	29 mA @= 220 V
Pick-up voltage	1.9 VDC	70 VAC
Drop-out voltage	1.9 VDC	70 VAC
Maximum reverse voltage	32 VDC	-
Max. response time pick-up	1 ms	
Max. response time drop-out	½ cycle	

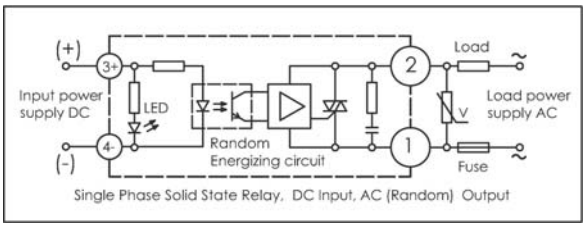
OUTPUT SPECIFICATIONS	VDC input		VAC input	
Maximum load current				
(AC51 @ Ta = 25° C)	25, 60, 80 A	100 A	25, 60, 80 A	100 A
(AC53a @ Ta = 25° C)	5, 15, 18 A	20 A	5, 15, 18 A	20 A
Load voltage range	40 - 480 VAC			
Frequency range	47 - 63 Hz			
Max. non-repetitive peak voltage	930 Vp	1,200 Vp	930 Vp	1,200 Vp
Max. non-repetitive peak current (t=10ms)	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,100 Ap	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,100 Ap
Maximum off state leakage current	8 mArms			
Minimum off state dv / dt	200 V / µseg			
Maximum on state voltage	1.6 VAC			
Minimum load current	0.05 Arms			
I^2t (10 ms) (orientative data)	625 A^2s (25 A) 2,025 A^2s (60 A) 4,225 A^2s (80 A) 6,050 A^2s (100 A)			

HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	58 x 44 x 23
Weight	150 g maximum
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1.2 Nm
Power terminal (M5x9) torque	2.4 Nm

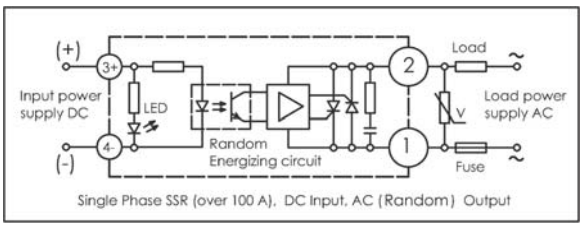
Dimensions



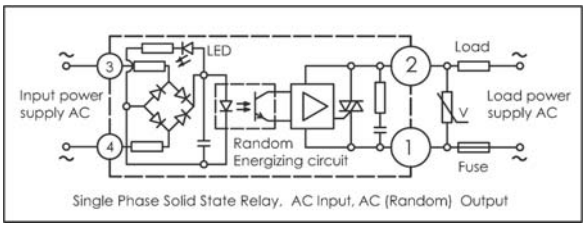
Diagrams



Single Phase Solid State Relay. DC Input, AC (Random) Output



Single Phase SSR (over 100 A). DC Input, AC (Random) Output

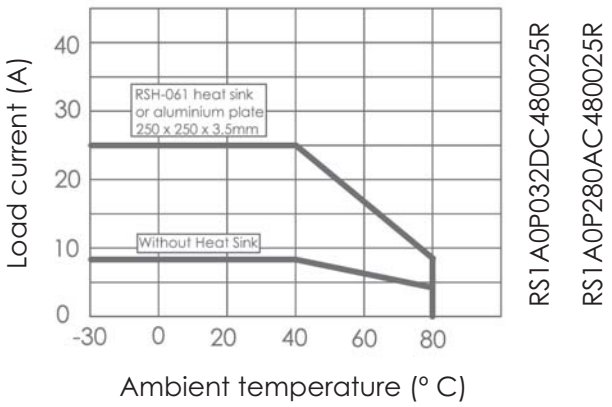


Single Phase Solid State Relay. AC Input, AC (Random) Output

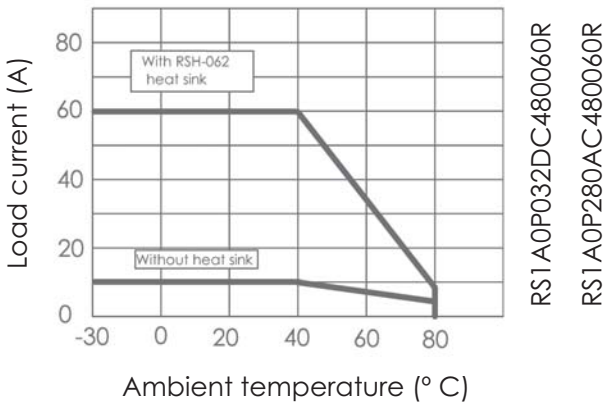
Single phase SSR (AC load & instant switching)

Load current vs. ambient temperature

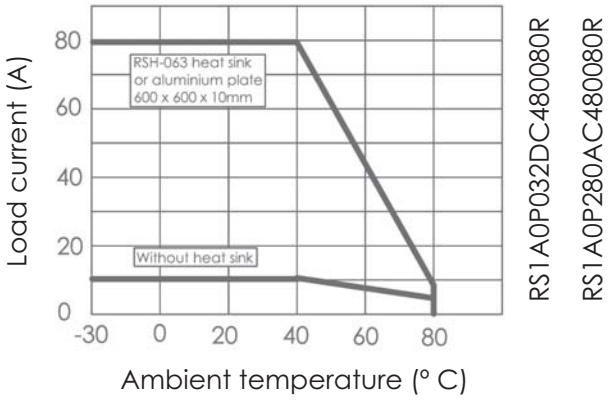
Single phase relay - 25 A



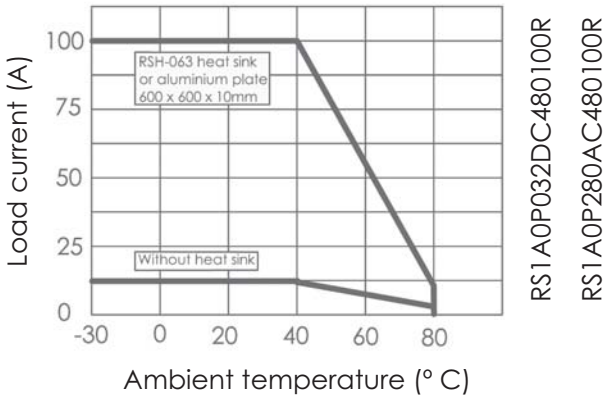
Single phase relay - 60 A



Single phase relay - 80 A

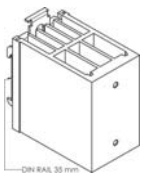


Single phase relay - 100 A

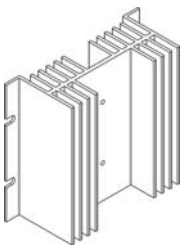


Heat sinks

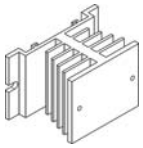
Reference	Output current	Dimensions	Relays to be used with
RSH-059 (DIN-rail)	<= 20 A	44 x 75 x 70	RS1A0P032DC480025R RS1A0P280AC480025R
RSH-060	<= 20 A	80 x 50 x 50	RS1A0P032DC480025R RS1A0P280AC480025R
RSH-061	<= 40 A	125 x 70 x 50	RS1A0P032DC480025R RS1A0P280AC480025R
RSH-062	<= 60 A	125 x 115 x 50	RS1A0P032DC480060R RS1A0P280AC480060R
RSH-063	<= 100 A	120 x 80 x 50	RS1A0P032DC480080R RS1A0P280AC480080R RS1A0P032DC480100R RS1A0P280AC480100R



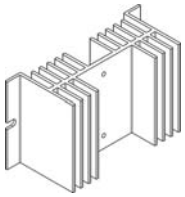
RSH-059



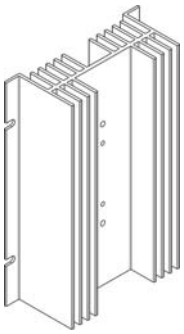
RSH-062



RSH-060



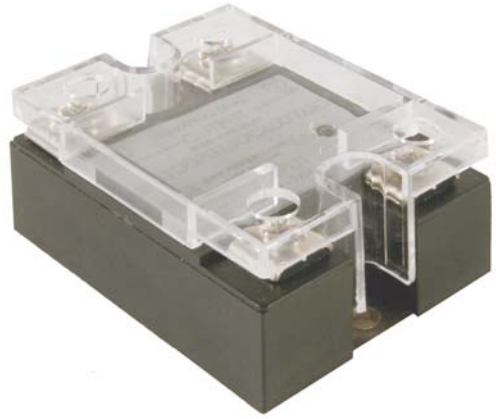
RSH-061



RSH-063

Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.

Single phase SSR (DC load)



» DC solid state relay.
» Input range: 3 - 15 VDC.
» Maximum load current (AC1 at 25º C): 25, 40, 60, 80A.
» Operational ratings: 12 - 600 VDC.
» LED indicator.
» Clip on protective cover for greater safety (IP 20).

Models and references

Control voltage	Load operational current	Reference
3 - 15 VDC	25 A	RS1D0P015DC600025D
	40 A	RS1D0P015DC600040D
	60 A	RS1D0P015DC600060D
	80 A	RS1D0P015DC600080D

Specifications

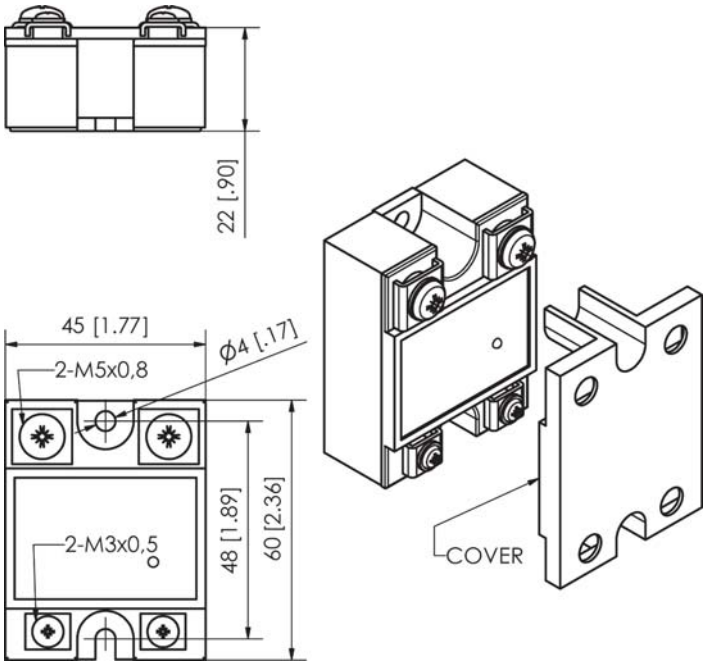
INPUT SPECIFICATIONS	VDC input
Control voltage range	3 - 15 VDC
Maximum input current	2 / 30 mA @= 3 V / 15 V
Pick-up voltage	1.5 VDC
Drop-out voltage	1.5 VDC
Maximum reverse voltage	15 VDC
Maximum response time pick-up	5 ms
Maximum response time drop-out	0.2 ms

OUTPUT SPECIFICATIONS	VDC input
Maximum load current (AC51 @ Ta = 25º C) (AC53a @ Ta = 25º C)	 25, 40, 60, 80 A 5, 10, 15, 18 A
Load voltage range	12 - 600 VDC
Maximum off state leakage current	1 mA
Maximum on state voltage	1.4 VDC
Minimum load current	0.1 A

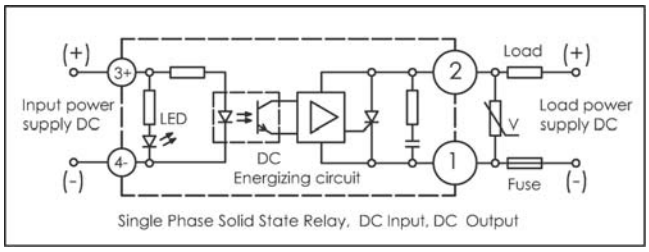
GENERAL SPECIFICATIONS	
Insulation to cover	2,000 VDC
Dielectric insulation (between input and output)	1,500 VDC
Operating temperature	-40 to 80º C
Storage temperature	-45 to 85º C
Rth junction to case	2.5º C/W (25 A) 0.65º C/W (60 A) 0.5º C/W (80 A)
Ambient humidity	Operating: up to 85%
CE-marking	Yes

HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	60 x 45 x 22
Weight	150 g maximum
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1.2 Nm
Power terminal (M5x9) torque	2.4 Nm

Dimensions

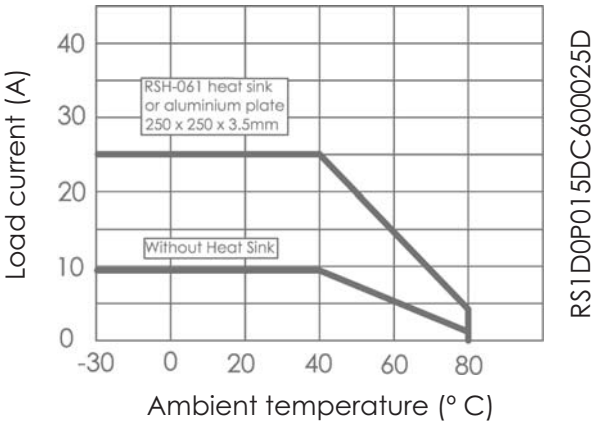


Circuit diagram

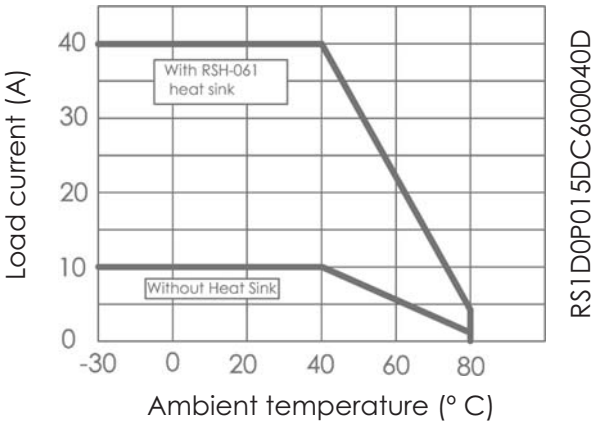


Load current vs. ambient temperature

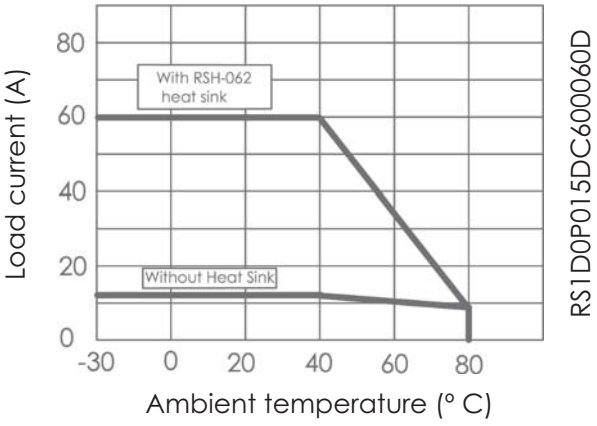
Single phase relay - 25 A



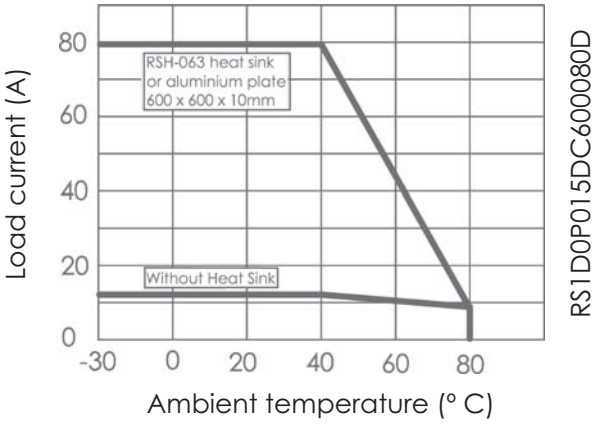
Single phase relay - 40 A



Single phase relay - 60 A



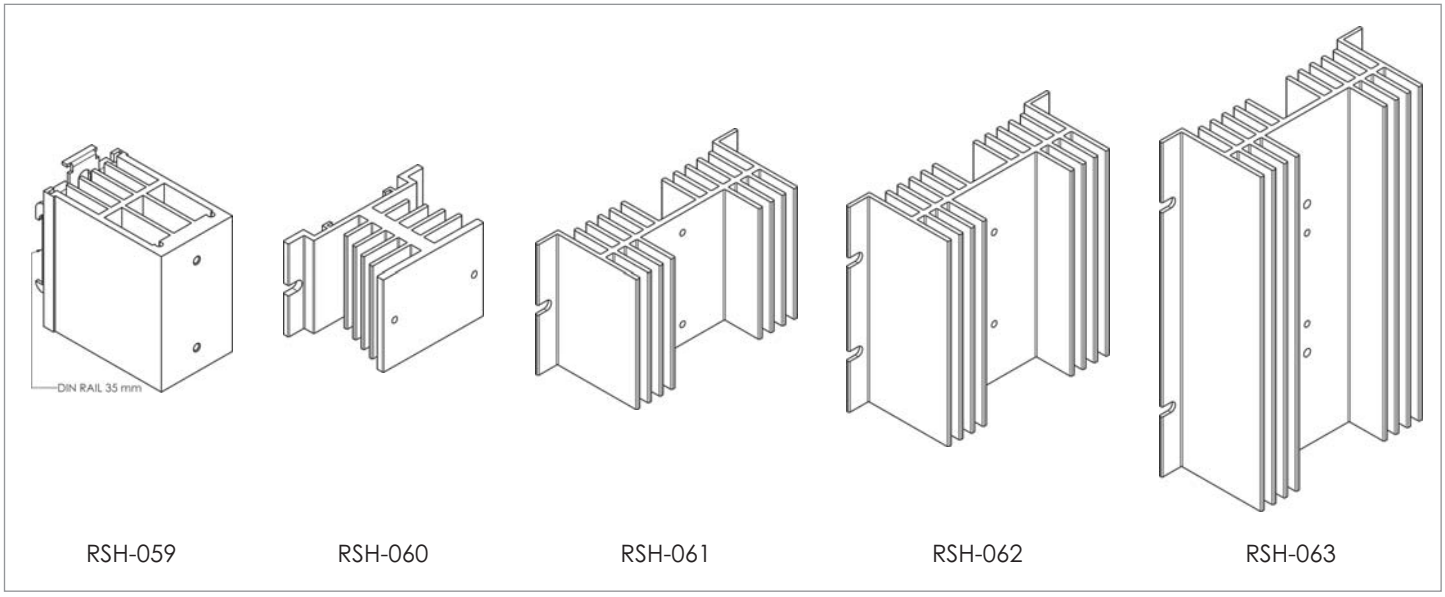
Single phase relay - 80 A



Heat sinks

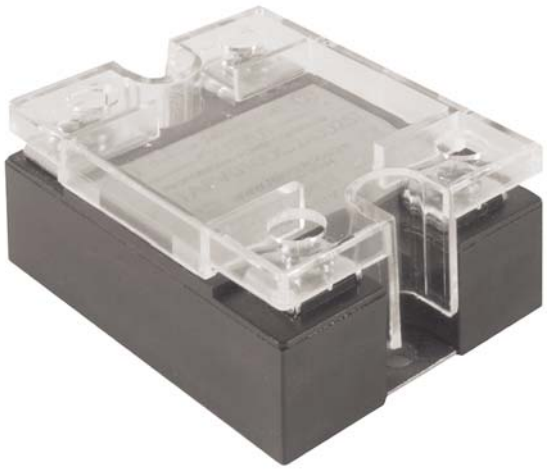
Heat sink reference	Output current	Dimensions	Relays to be used with
RSH-059 (DIN-rail)	<= 20 A	44 x 75 x 70 mm	RS1D0P015DC600025D
RSH-060	<= 20 A	80 x 50 x 50 mm	RS1D0P015DC600025D
RSH-061	<= 40 A	125 x 70 x 50 mm	RS1D0P015DC600025D RS1D0P015DC600040D
RSH-062	<= 60 A	125 x 115 x 50 mm	RS1D0P015DC600060D
RSH-063	<= 100 A	120 x 80 x 50 mm	RS1D0P015DC600080D

Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.



RSH-059 RSH-060 RSH-061 RSH-062 RSH-063

Single phase SSR (AC & load analog switching / phase angle control)



» Analog switching AC solid state relay.

» 2 input ranges: 4 - 20 mA and 2 - 10 VDC.

» Maximum load current (AC1 at 25º C): 25, 40, 60, 80, 100 A.

» Operational ratings: 0 - 380 VAC.

» Frequency range: 50 - 60 Hz.

» Maximum non-repetitive peak voltage: 850 Vp.

» Clip on protective cover for greater safety (IP 20).

Models and references

Control mode	Rated operational voltage	Rated operational current	Reference
2 - 10 VDC	0 - 240 VAC	25 A	RS1APV010DC240025R
		40 A	RS1APV010DC240040R
	0 - 380 VAC	60 A	RS1APV010DC380060R
		80 A	RS1APV010DC380080R
		100 A	RS1APV010DC380100R
4 - 20 mA	0 - 240 VAC	25 A	RS1API4020mA240025R
		40 A	RS1API4020mA240040R
	0 - 380 VAC	60 A	RS1API4020mA380060R
		80 A	RS1API4020mA380080R
		100 A	RS1API4020mA380100R

Specifications

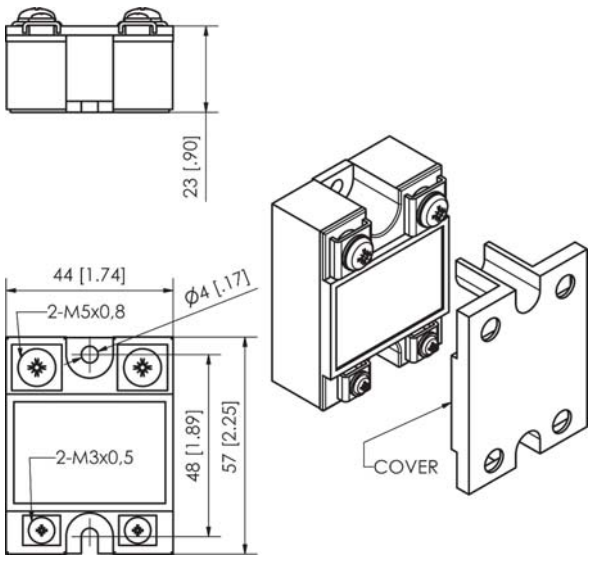
GENERAL SPECIFICATIONS	Voltage		Current	
Dielectric insulation (between input & output)	2,500 VAC			
Operating temperature	-40 to 80º C			
Storage temperature	-45 to 85º C			
Rth junction to case	2.5º C/W (25 A) 1.25º C/W (40 A)	0.65º C/W (60 A) 0.5º C/W (80 A) 0.3º C/W (100 A)	2.5º C/W (60 A) 1.25º C/W (40 A)	0.65º C/W (60 A) 0.5º C/W (80 A) 0.3º C/W (100 A)
Ambient humidity (operating)	Operating: up to 85 %			
CE-marking	Yes			

INPUT SPECIFICATIONS	Voltage	Current
Control range voltage / current	2 - 10 VDC	4 - 20 mA
Pick-up voltage / current	1.9 VDC	4 mA
Drop-out voltage / current	1.9 VDC	4 mA
Maximum reverse voltage	10 VDC	-
Maximum response time pick-up	20 ms	
Maximum response time drop-out	20 ms	

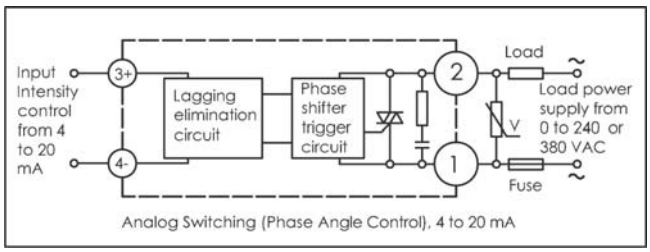
OUTPUT SPECIFICATIONS	Voltage		Current	
Maximum load current				
(AC1 at 25° C)	25, 40 A	60, 80, 100 A	25, 40 A	60, 80, 100 A
(AC53a @ Ta = 25° C)	5, 10 A	15, 18, 20 A	5, 10 A	15, 18, 20 A
Load voltage range	0 - 240 VAC	0 - 380 VAC	0 - 240 VAC	0 - 380 VAC
Frequency range	50 - 60 Hz			
Maximum non-repetitive peak voltage	650 Vp	850 Vp	650 Vp	850 Vp
Maximum non-repetitive peak current (10 ms)	350 Ap / 25 A 500 Ap / 40 A	630 Ap / 60 A 910 Ap / 80 A 1,100 Ap / 100 A	350 Ap / 25 A 500 Ap / 40 A	630 Ap / 60 A 910 Ap / 80 A 1,100 Ap / 100 A
Maximum off state leakage current	3 mA			
Maximum on state voltage	2 VAC			
Minimum off state dv / dt	1,000 V / µs			
Minimum load current	0.15 A	0.25 A	0.15 A	0.25 A
I^2t (10 ms) (orientative data)	625 A^2s (25 A) 1,250 A^2s (40 A) 2,025 A^2s (60 A) 4,225 A^2s (80 A) 6,050 A^2s (100 A)			

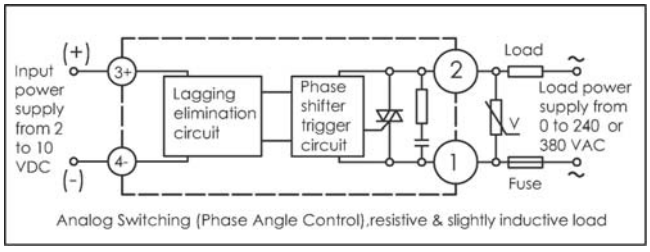
HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	68 x 48 x 28
Weight	160 g. maximum
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1.2 Nm
Power terminal (M5x9) torque	2.4 Nm

Dimensions



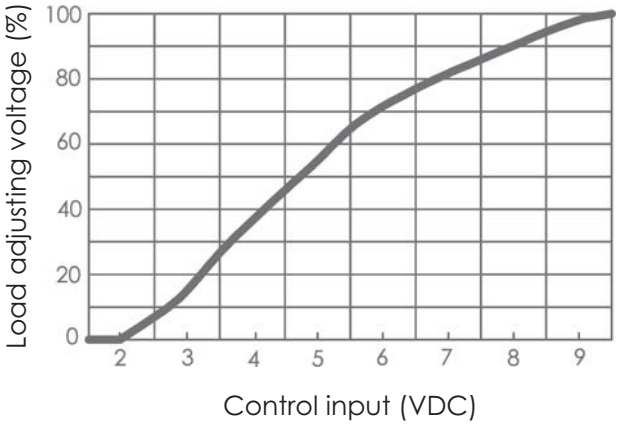
Circuit diagrams





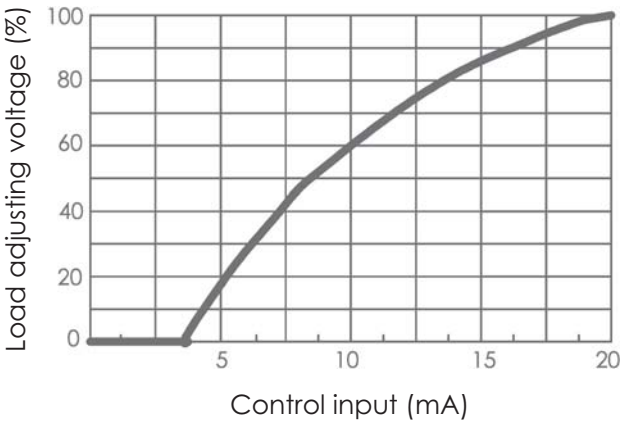
Input voltage vs. output voltage

RS1APV010DC240025R
RS1APV010DC240040R
RS1APV010DC380060R
RS1APV010DC380080R
RS1APV010DC380100R



Input current vs. output voltage

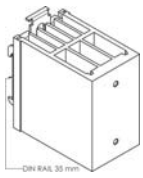
RS1API4020mA240025R
RS1API4020mA240040R
RS1API4020mA380060R
RS1API4020mA380080R
RS1API4020mA380100R

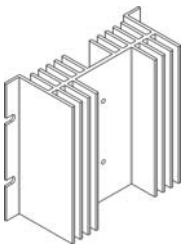


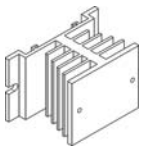
Heat sinks

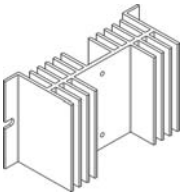
Reference	Output current	Dimensions	Relays to be used with
RSH-059 (DIN-rail)	<= 20 A	44 x 75 x 70	RS1APV010DC240025R RS1API4020mA380025R
RSH-060	<= 20 A	80 x 50 x 50	RS1APV010DC240025R RS1API4020mA380025R
RSH-061	<= 40 A	125 x 70 x 50	RS1APV010DC240025R RS1API4020mA380025R RS1APV010DC240040R RS1API4020mA380040R
RSH-062	<= 60 A	125 x 115 x 50	RS1APV010DC240060R RS1API4020mA380060R
RSH-063	<= 100 A	120 x 80 x 50	RS1APV010DC240080R RS1API4020mA380080R RS1APV010DC240100R RS1API4020mA380100R

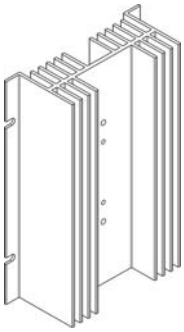
Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.


RSH-059


RSH-062


RSH-060


RSH-061


RSH-063

DIN-rail single phase SSR (AC & zero crossing load)

» Zero crossing AC solid state relay.
» Input range: 5 - 24 VDC.
» Maximum load current (AC1 at 25° C): 25, 60 A.
» Operational ratings: 48 - 480 VAC.
» Frequency range: 47 - 63 Hz.
» Maximum non-repetitive peak voltage: 1,000 Vp.
» 2 LED indicators (input / output).
» Clip on protective cover for greater safety (IP 20).
» Heat sink included.
» Can be mounted directly on a DIN-rail with a clip for DIN-rail.

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
Yes	5 - 24 VDC	48 - 480 VAC	25 A	RS1A0R024DC480025Z
			60 A	RS1A0P032DC480060Z

Specifications

GENERAL SPECIFICATIONS	
Dielectric insulation (between input and output)	2,500 VAC
Operating temperature	-40 to 80° C
Storage temperature	-45 to 85° C
Ambient humidity	Operating: up to 85%
CE-marking	Yes

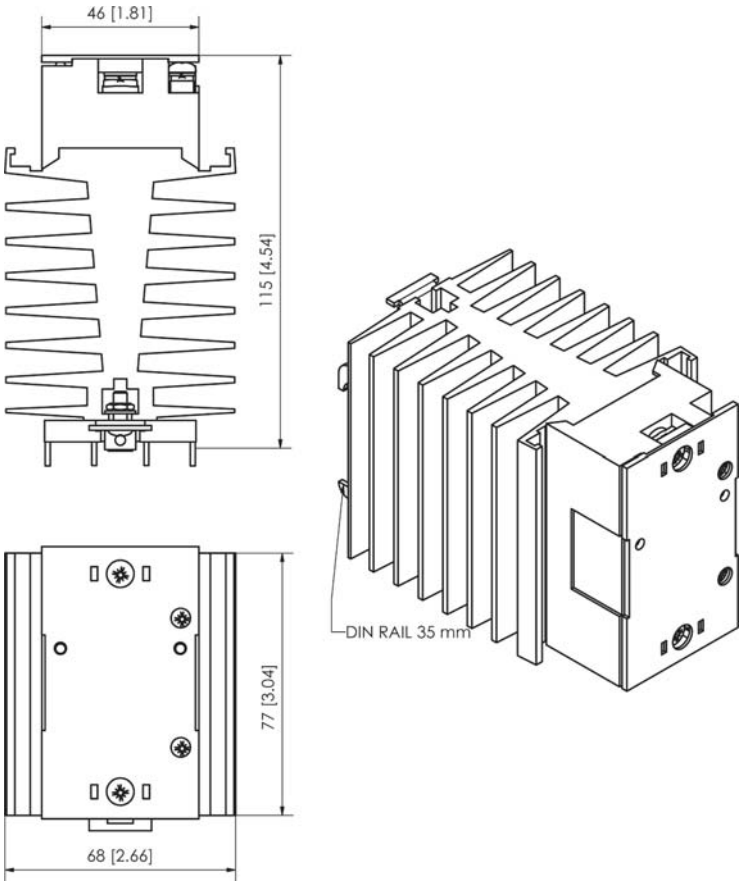
INPUT SPECIFICATIONS	
Control voltage range	5 - 24 VDC
Maximum input current	16/18 mA @= 5 V / 24 V
Pick-up voltage	2.2 VDC
Drop-out voltage	2.2 VDC
Maximum reverse voltage	24 VDC
Maximum response time pick-up	10 ms
Maximum response time drop-out	10 ms

HOUSING SPECIFICATIONS		
Dimensions (L x W x H mm)	75 x 35 x 100	80 x 70 x 105
Weight	200 g	340 g
Baseplatet	Aluminum, nickel-plated	
Control terminal (M3x6) torque	1.2 Nm	
Power terminal (M5x9) torque	2.4 Nm	

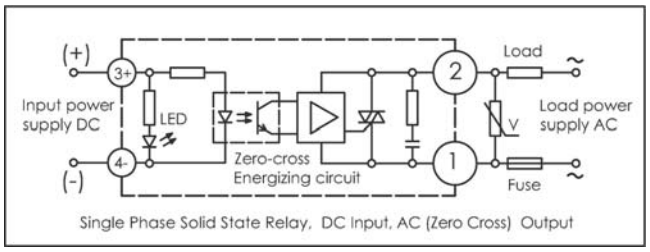
OUTPUT SPECIFICATIONS		
Maximum load current		
(AC51 @ Ta = 25° C)	25 A	60 A
(AC53a @ Ta = 25° C)	5 A	15 A
Load voltage range	48 - 480 VAC	
Frequency range	47 - 63 Hz	
Maximum non-repetitive peak voltage	1,000 Vp	
Maximum non-repetitive peak current (t = 10 ms)	350 Ap	630 Ap
Maximum off state leakage current (t = 25° C)	3 mA	
Minimum off state dv / dt	500 V / µs	
Maximum on state voltage	1.2 VAC	
Minimum load current	0.1 A	
I^2t (10 ms) (orientative data)	625 A^2s (25 A) 2,025 A^2s (60 A)	

DIN-rail single phase SSR (AC & zero crossing load)

Dimensions

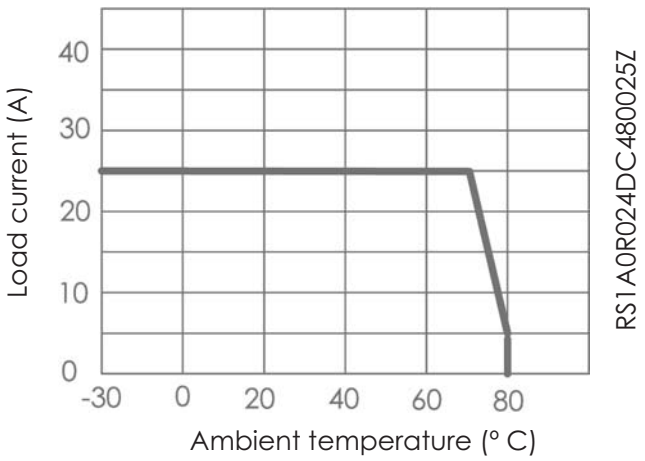


Circuit diagram

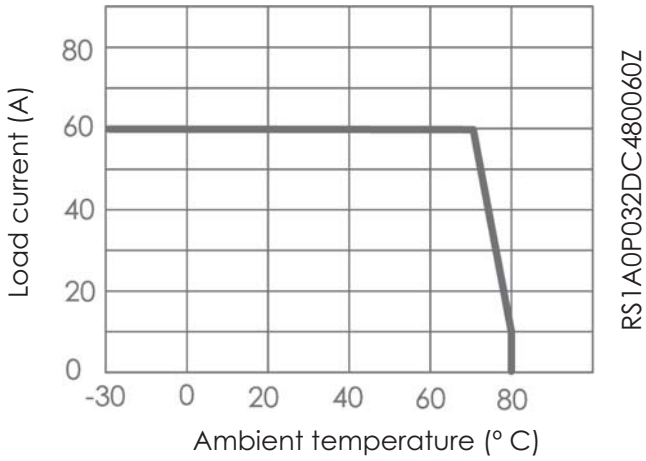


Load current vs. ambient temperature

DIN-rail solid state relay (AC, 25 A)



DIN-rail solid state relay (AC, 60 A)



Single phase power SSR (AC & zero crossing load)

» AC Solid state relay, zero crossing.
» Input range: 3 - 32 VDC.
» Maximum load current (AC1 at 25° C): 100, 150, 250 A.
» Operational ratings: 40 - 400 VAC.
» Frequency range: 50 - 60 Hz.
» Maximum non-repetitive peak voltage: 930 Vp.
» LED indicator.

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
Yes	3 - 32 VDC	40 - 440 VAC	100 A	RS1A0P032DC440100Z
			150 A	RS1A0P032DC440150Z
			250 A	RS1A0P032DC440250Z

Specifications

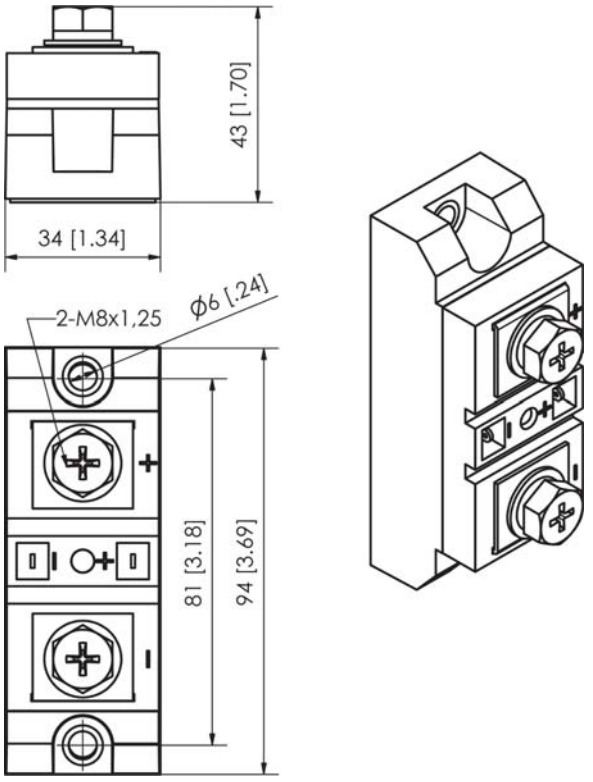
GENERAL SPECIFICATIONS	VDC input
Dielectric insulation (between input & output)	2,500 VAC
Operating temperature	-30° to 80° C
Storage temperature	-45° to 85° C
Ambient humidity (operating)	Up to 85 %
CE-marking	Yes

HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	95 x 35 x 43
Weight	235 g
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1.0 Nm
Power terminal (M5x9) torque	2.4 Nm

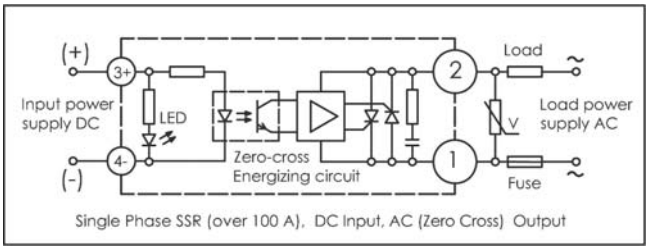
INPUT SPECIFICATIONS	
Control voltage range	3 - 32 VDC
Maximum input current	6/35 mA @= 3 V / 32 V
Pick-up voltage	3 VDC
Drop-out voltage	1 VDC
Maximum reverse voltage	32 VDC
Maximum response time pick-up	10 ms
Maximum response time drop-out	10 ms

OUTPUT SPECIFICATIONS			
Maximum load current	100 A	150 A	250 A
Load voltage range	40 - 440 VAC		
Frequency range	50 - 60 Hz		
Maximum non-repetitive peak voltage	930 Vp		
Maximum non-repetitive peak current (t = 10 ms)	1,100 Ap	1,450 Ap	2,200 Ap
Maximum off state leakage current (T = 25° C)	10 mA		
Minimum off state dv / dt	500 V / µs		
Maximum on state voltage	1.6 VAC		
I^2t (10 ms) (orientative data)	6,050 A^2s (100 A) 10,500 A^2s (150 A) 24,200 A^2s (250 A)		

Dimensions

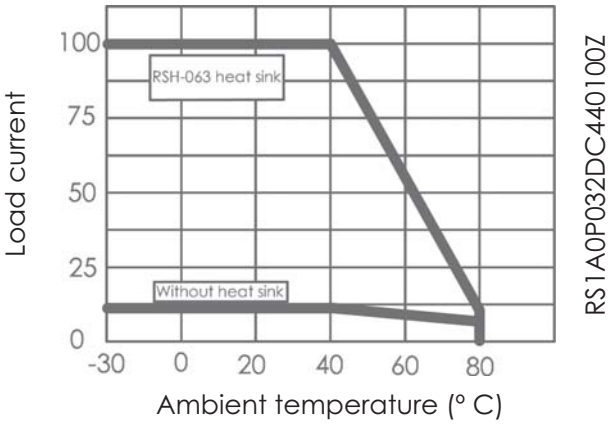


Circuit diagram

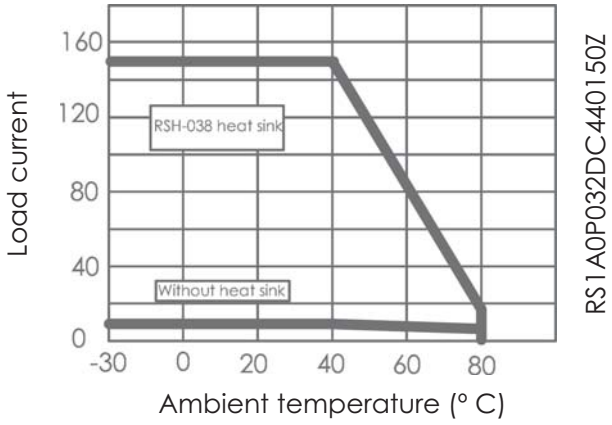


Load current vs. ambient temperature

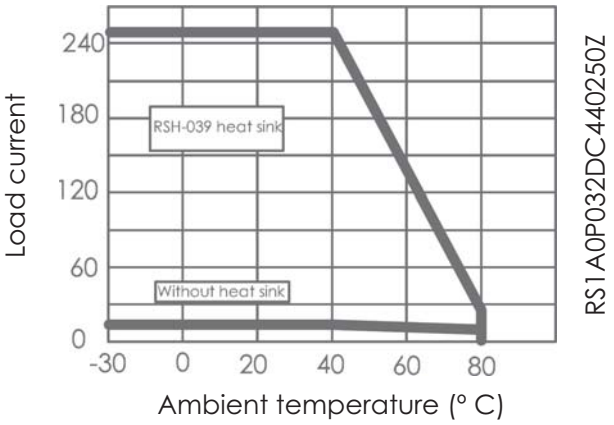
Single phase relay 100 A



Single phase relay 150 A

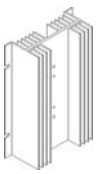


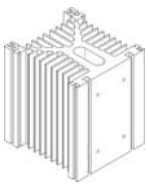
Single phase relay 250 A

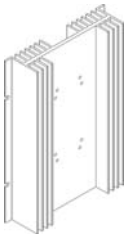


Heat sinks

Ref.	Output current	Dimensions (mm)	Relays to be used with
RSH-063	<= 100 A	120 x 80 x 50	RS1A0P032DC440100Z
RSH-037	<= 80 A	260 x 180 x 50	RS1A0P032DC440100Z
RSH-038	<= 100 A	150 x 125 x 135	RS1A0P032DC440150Z
RSH-039	<= 200 A	200 x 125 x 135	RS1A0P032DC440250Z


RSH-063


RSH-038


RSH-037


RSH-039

Single phase SSR, PCB mounting (AC & zero crossing load)

» AC Solid state relay, zero crossing.
» Input range: 3 - 32 VDC.
» Maximum load current (AC1 at 25° C): 4, 5 A.
» Operational ratings: 40 - 400 VAC.
» Frequency range: 50 - 60 Hz.
» Maximum non-repetitive peak voltage: 1,200 Vp.

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
Yes	3 - 32 VDC	40 - 440 VAC	4 A	RS1ACB032DC440004Z
				RS1AMB032DC440004Z
			5 A	RS1AMB032DC440005Z

Specifications

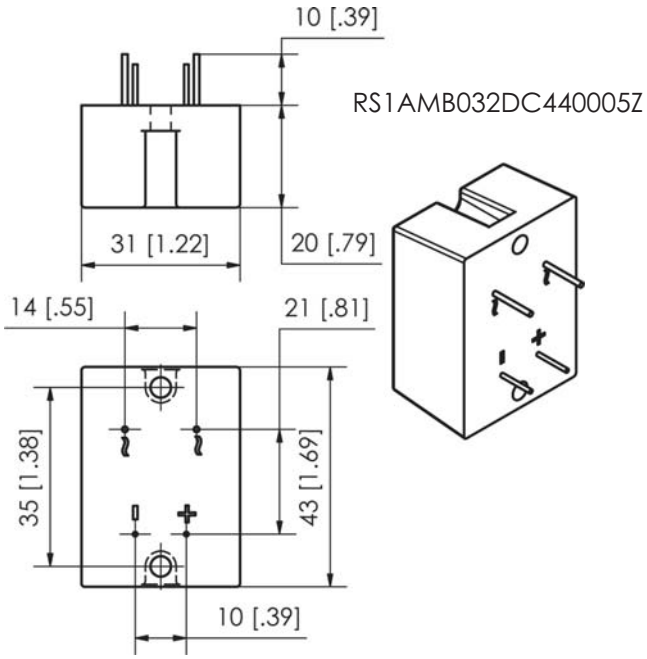
GENERAL SPECIFICATIONS	VDC input
Dielectric insulation (between input & output)	1,500 VAC
Operating temperature	-30° to 80° C
Storage temperature	-35° to 85° C
Ambient humidity (operating)	Up to 85 %
CE-marking	Yes

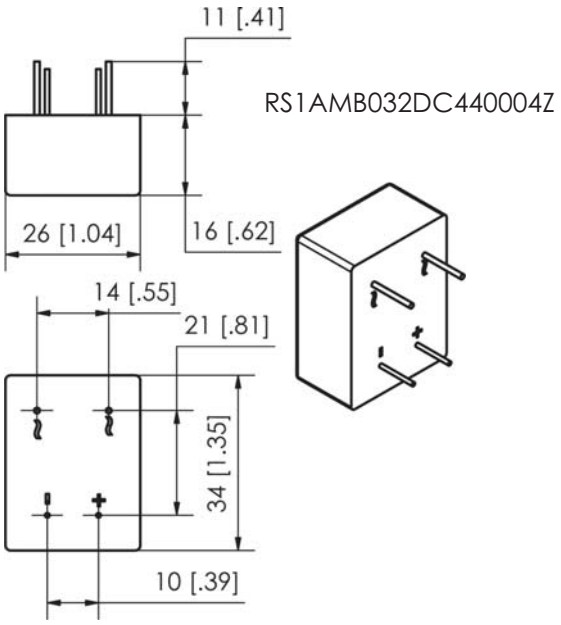
INPUT SPECIFICATIONS		
Control voltage range	3 - 32 VDC	
Maximum input current	9 / 16 mA @= 5 V / 24 V	
Pick-up voltage	1.5 VDC	
Drop-out voltage	1.5 VDC	
Maximum reverse voltage	32 VDC	
Maximum response time pick-up	10 ms	
Maximum response time drop-out	10 ms	

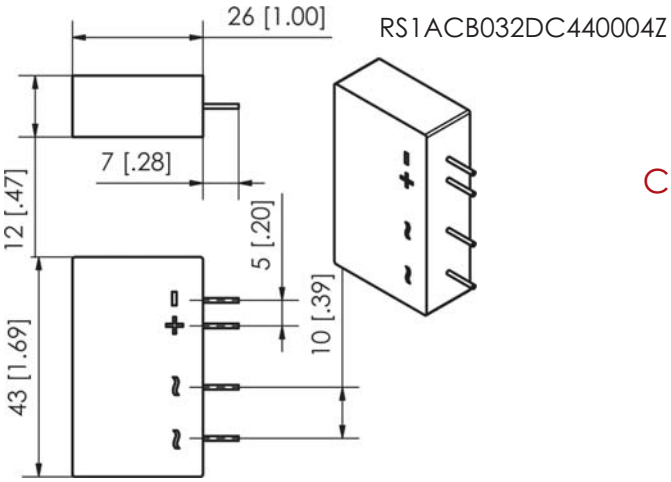
OUTPUT SPECIFICATIONS		
Maximum load current (AC51 @ Ta = 25° C)	4 A	5 A
Load voltage range	40 - 440 VAC	
Frequency range	50 - 60 Hz	
Maximum non-repetitive peak voltage	1,200 Vp	
Maximum non-repetitive peak current (t = 10 ms)	7 Ap	
Maximum off state leakage current	10 mA	
Minimum off state dv / dt	200 V / µs	
Maximum on state voltage	1.6 VAC	
Minimum load current	0.1 A	

HOUSING SPECIFICATIONS	5 A	4 A	4 A plastic
Dimensions (L x W x H mm)	43 x 31 x 20	35 x 27 x 17	43 x 26 x 12
Weight	78 g maximum	34 g	22 g
Baseplate	Aluminum, nickel-plated		

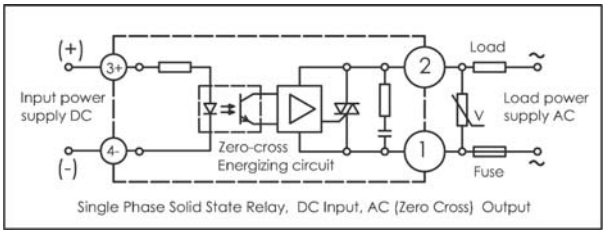
Dimensions



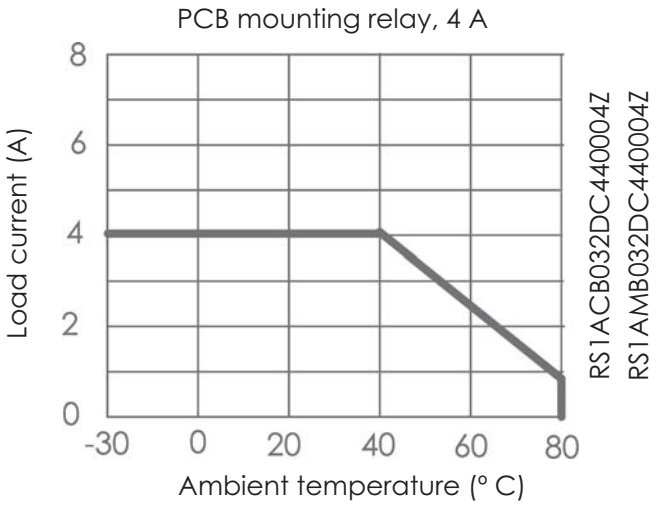


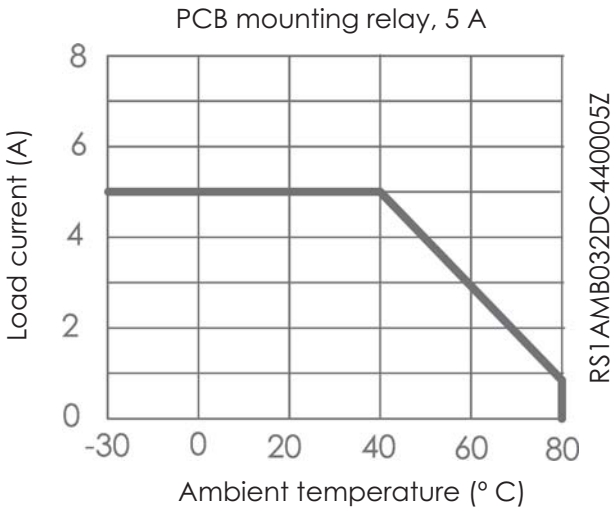


Circuit diagram



Load current vs. ambient temperature





Socket single phase SSR (AC / DC / programmable)

» Socket solid state relay.
» 8 models:
- 4 programmable (2 DC, 2 AC).
- 4 non-programmable (2 DC, 2 AC).
» Input range: 5 - 28 VDC.
» Maximum load current: 3 A (in DC), 2 A (in AC).
» Operational ratings: 1.5 - 250 VAC and 5 - 50 VDC.
» Frequency range: 50 - 60 Hz.
» Maximum non-repetitive peak voltage: 450 Vp.
» LED indicator.
» Free programming software available online.
» Both timing (range from 1 ms to 999 hours) and PWM functions (DC load).

Models and references

Control voltage	Rated operational voltage	Zero crossing	Polarity output	Programmable	Reference
5 - 28 VDC	1.5 - 250 VAC	Yes	-	No	RFS1SL028ACZ0
				Yes	RFS1SL028ACZP
		No	-	No	RFS1SL028AC00
				Yes	RFS1SL028AC0P
	5 - 50 VDC	-	Positive common	No	RFS1SL028DC00
				Yes	RFS1SL028DC0P
		-	Negative common	No	RFS1SL028DCN0
				Yes	RFS1SL028DCNP

Specifications

INPUT SPECIFICATIONS	
Control voltage range	5 - 28 VDC
Maximum input current	10 - 20 mA
Pick-up voltage	5 VDC
Drop-out voltage	3 VDC
Maximum reverse voltage	28 VDC
Maximum response time pick-up	1 ms
Maximum response time drop-out	2 ms

OUTPUT SPECIFICATIONS		
Maximum load current (AC51 @ Ta = 25° C)	3 A	2 A
Load voltage range	1.5 - 250 VAC	5 - 50 VDC
Frequency range	50 - 60 Hz	-
Maximum non-repetitive peak voltage	450 Vp	150 VDC
Maximum non-repetitive peak current (t = 5 ms)	20 Ap	
Maximum off state leakage current	1 mA	
Minimum off state dv / dt	5 A / 350 µs	
Maximum on state voltage	1.5 VAC	1.5 VDC
Minimum load current	0.1 A	
I^2t (5 ms) (orientative data)	1 A^2s	

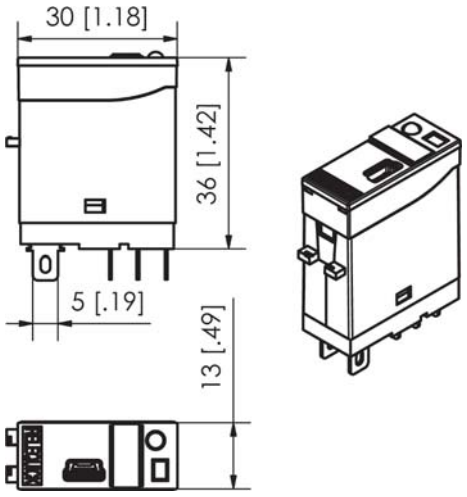
Socket single phase SSR (AC / DC / programmable)

Specifications

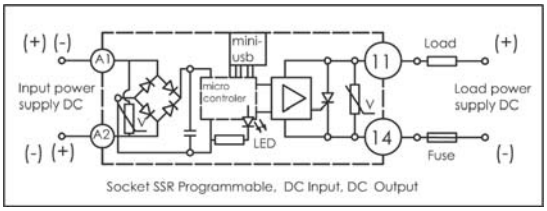
GENERAL SPECIFICATIONS	
Dielectric insulation (between input & output)	3,750 KV
Operating temperature	-20° to 60° C
Storage temperature	-20° to 100° C
Ambient humidity (operating)	Up to 85 %
CE-marking	Yes

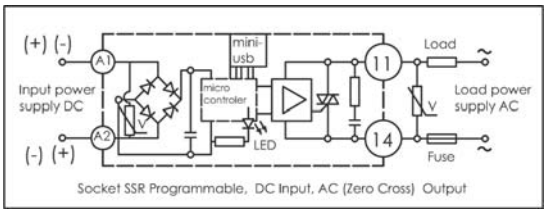
HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	29 x 13 x 40
Weight	23 g maximum
Baseplate	Aluminum, nickel-plated

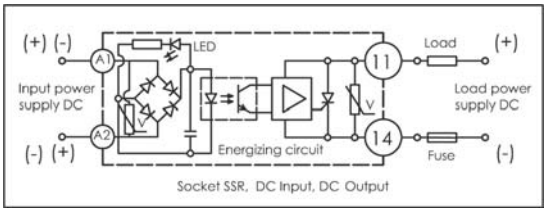
Dimensions

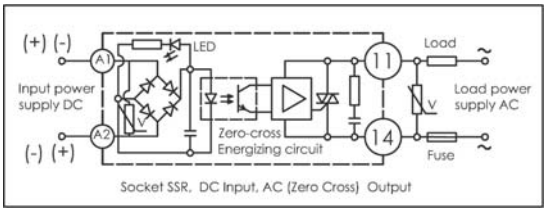


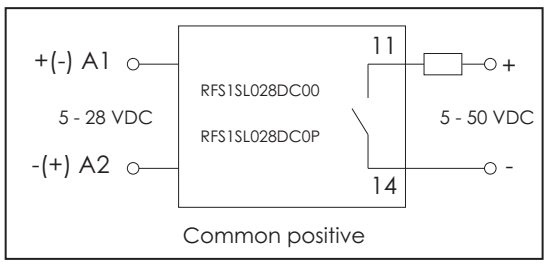
Circuit diagrams

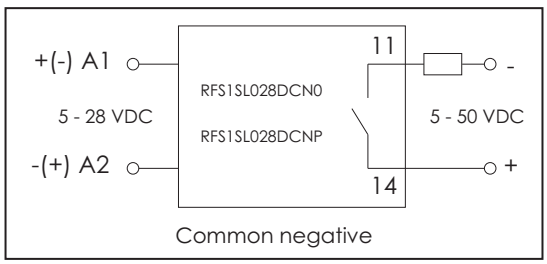




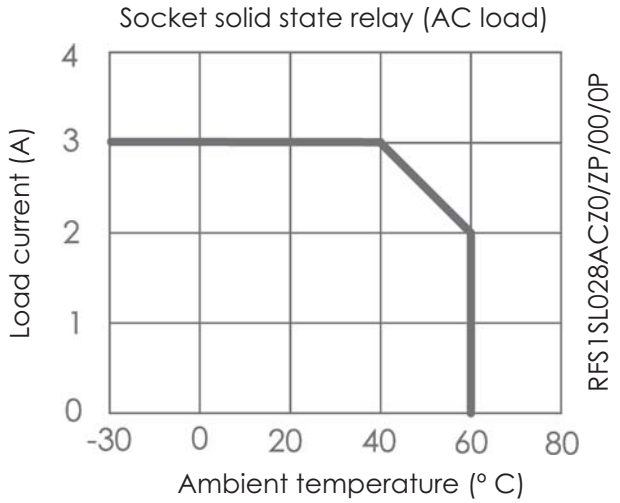


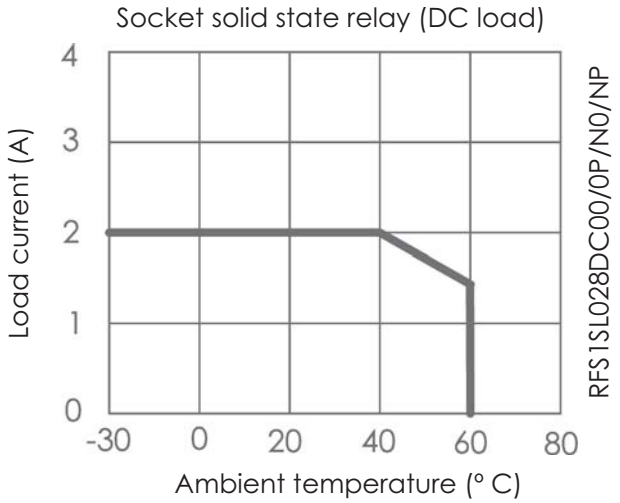






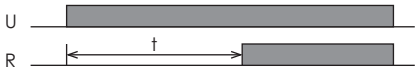
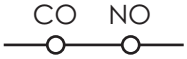
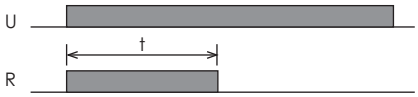
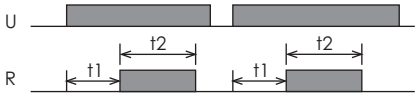
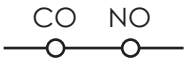
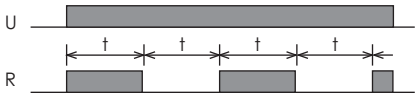
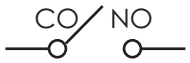
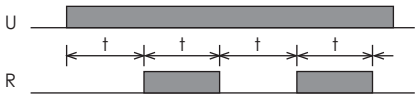
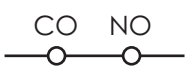
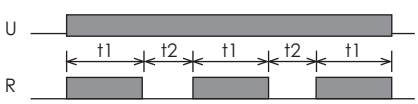
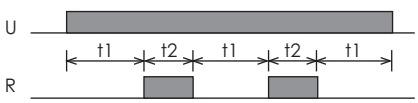
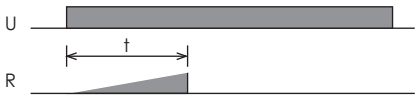
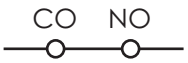
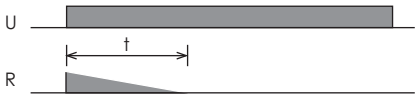
Load current vs. ambient temperature





Socket single phase SSR (AC / DC / programmable)

Programming functions

	Function name	Initial state	Diagram	Description
Simple timer	Switch-on delay			Delay timing (t time) to the connection of the relay.
	Switch-off delay			Delay timing (t time) to the disconnection of the relay.
Symmetric and asymmetric cycle timing functions	Pulse delay			The relay is switched on after a t1 delay is over and keeps on for a t2 lapse. The delay begins when the module is feeded.
	Symmetric timing cycle (starting closed)			Once the module is feeded a symmetric cycle begins, being the relay open for a t timelapse and closed during the next t interval. The relay starts being closed during the first interval.
	Symmetric timing cycle (starting open)			Once the module is feeded a symmetric cycle begins, being the relay closed for a t timelapse and open during the next t interval. The relay starts being open during the first interval.
	Asymmetric timing cycle (starting closed)			Once the module is feeded an asymmetric cycle begins, being the relay closed for a t1 timelapse and open during a t2 interval. The relay starts being closed during the first interval.
	Asymmetric timing cycle (starting open)			Once the module is feeded an asymmetric cycle begins, being the relay open for a t1 timelapse and closed during a t2 interval. The relay starts being open during the first interval.
DC load regulation	PWM progressive connection ramp (for DC loads)			The relay is connected slowly as the progressive connection ramp (PWM) is completed during the specified time t.
	PWM progressive disconnection ramp (for DC loads)			The relay is disconnected slowly as the progressive disconnection ramp (PWM) is completed during the specified time t.

Three phase SSR (AC & zero crossing load)

» Three phase AC solid state relay, zero crossing.
» 2 input ranges: 3 - 32 VDC and 90 - 250 VAC.
» Maximum load current (AC1 at 25º C): 25, 60, 80, 100, 120 A.
» Operational ratings: 40 - 530 VAC.
» Frequency range: 47- 63 Hz.
» Maximum non-repetitive peak voltage: 1,000 Vp.
» LED indicator.
» Clip on protective cover for greater safety (IP 20).

Models and references

Zero crossing	Control voltage	Rated operational voltage	Rated operational current	Reference
Yes	3 - 32 VDC	40 - 440 VAC	25 A	RS3A0P032DC440025Z
			60 A	RS3A0P032DC440060Z
			80 A	RS3A0P032DC440080Z
			120 A	RS3A0P032DC480120Z
	90 - 250 VAC		25 A	RS3A0P250AC440025Z
			60 A	RS3A0P250AC440060Z
			80 A	RS3A0P250AC440080Z
		40 - 530 VAC	100 A	RS3A0P280AC480100Z

Specifications

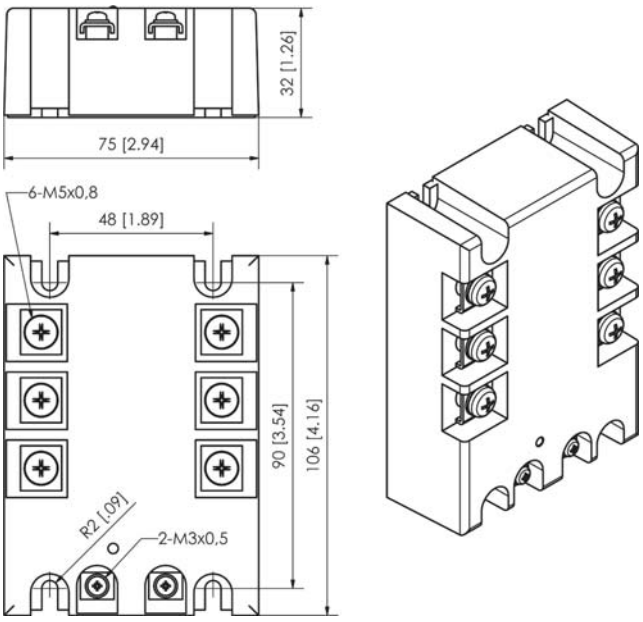
GENERAL SPECIFICATIONS	VDC input	VAC input
Dielectric insulation (between input & output)	2,500 VAC	2,000 VAC
Operating temperature	-25 to 70º C	-40 to 80º C
Storage temperature	-35 to 85º C	-45 to 85º C
Ambient humidity	Operating: 45 % to 85 %	
CE marking	Yes	

INPUT SPECIFICATIONS	VDC input	VAC input	
Control voltage range	3 - 32 VDC	90 - 250 VAC	
Input current (maximum)	5/25 mA @= 3 V / 32 V	5/30 mA @= 90 VAC / 250 VAC	15/20 mA @= 90 VAC / 250 VAC (only RS3A0P250AC530100Z)
Pick-up voltage	3 VDC	70 VAC	
Drop-out voltage	1 VDC	70 VAC	
Maximum reverse voltage	32 VDC	-	
Max. response time pick-up	10 ms		
Max. response time drop-out	10 ms		

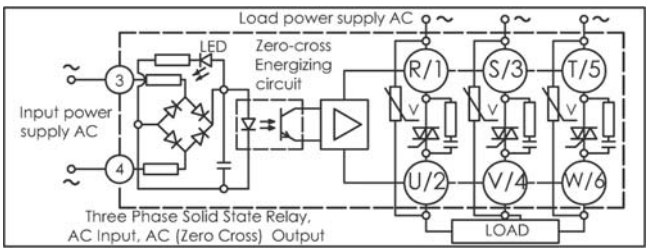
OUTPUT SPECIFICATIONS	VDC input			VAC input
Maximum load current				
(AC51 @ Ta = 25° C)	25, 60, 80 A	120 A	25, 60, 80 A	100 A
(AC53a @ Ta = 25° C)	5, 15, 18 A	21 A	5, 15, 18 A	20 A
Load voltage range	40 - 440 VAC			40 - 530 VAC
Frequency range	50 - 60 Hz			47 - 63 Hz
Max. non-repetitive peak voltage	930 Vp			1,000 Vp
Max. non-repetitive peak current (t=10ms)	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,400 Ap	350 Ap / 25 A 630 Ap / 60 A 910 Ap / 80 A	1,100 Ap
Maximum off state leakage current	10 mA			1 mA
Maximum on state voltage	1.6 VAC			1.5 VAC
Minimum off state dv / dt	300 V / µseg			
Minimum load current	0.1 Arms			
I^2t (10 ms) (orientative data)	625 A^2s (25 A) 2,025 A^2s (60 A) 4,225 A^2s (80 A) 6,050 A^2s (100 A) 9,800 A^2s (120 A)			

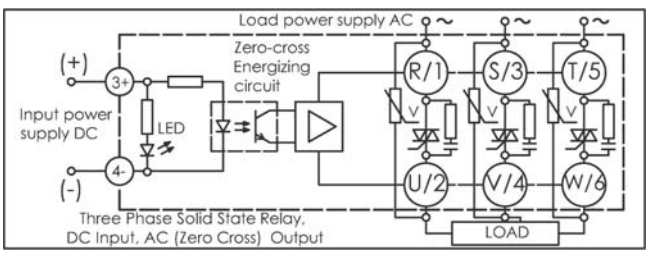
HOUSING SPECIFICATIONS	VDC input	VAC input
Dimensions (L x W x H mm)	105 x 75 x 32	120 x 85 x 50
Weight	500 g maximum	
Baseplate	Aluminum, nickel-plated	
Control terminal (M3x6) torque	1.2 Nm	
Power terminal (M5x9) torque	2.4 Nm	

Dimensions



Circuit diagrams

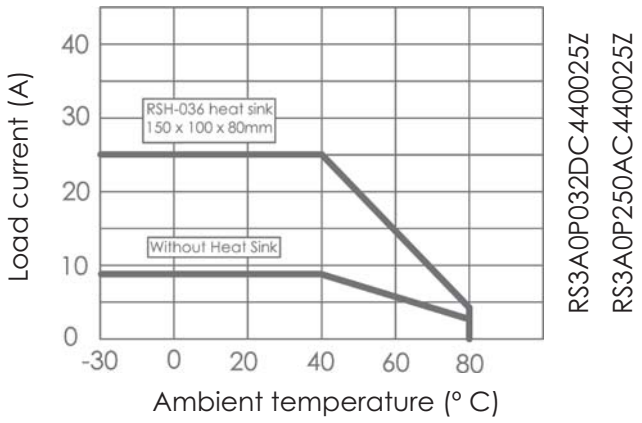




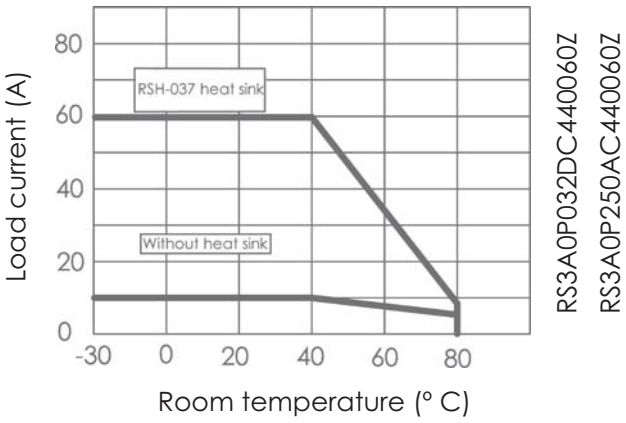
Three phase SSR (AC & zero crossing load)

Load current vs. ambient temperature

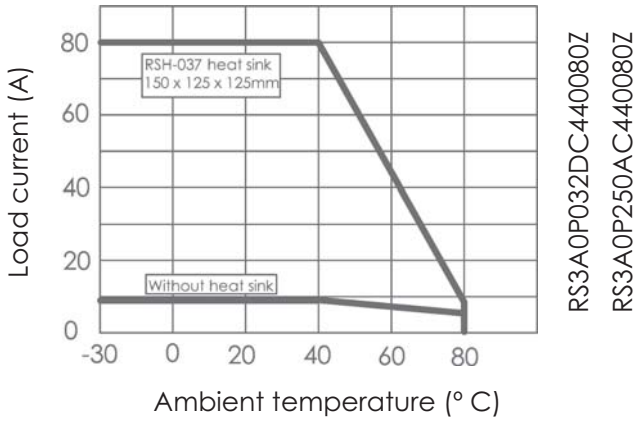
Three phase relay - 25 A



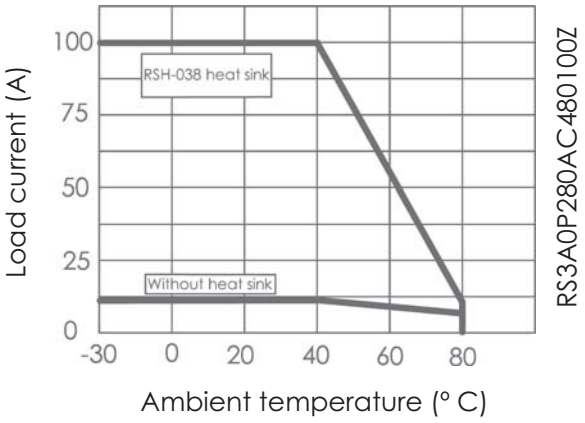
Three phase relay - 60 A



Three phase relay - 80 A



Three phase relay - 100 A

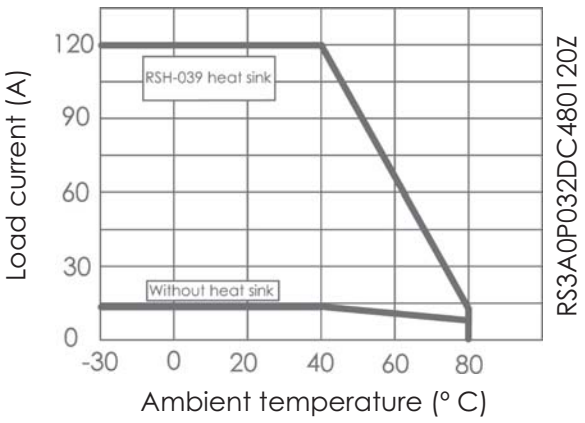


Heat sinks

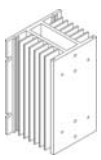
Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.

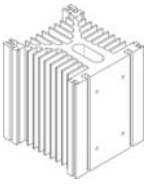
Ref.	Output current	Dimensions	Relays to be used with
RSH-035	<= 20 A	150 x 90 x 35	RS3A0P032DC440025Z RS3A0P250AC440025Z
RSH-036	<= 40 A	150 x 100 x 80	RS3A0P032DC440025Z RS3A0P250AC440025Z
RSH-037	<= 80 A	260 x 180 x 50	RS3A0P032DC440060Z RS3A0P250AC440060Z
RSH-038	<= 100 A	150 x 125 x 135	RS3A0P032DC440080Z RS3A0P250AC440080Z RS3A0P250AC530100Z
RSH-039	<= 200 A	200 x 125 x 135	RS3A0P032DC440120Z

Three phase relay - 120 A

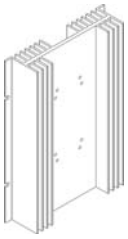



RSH-035

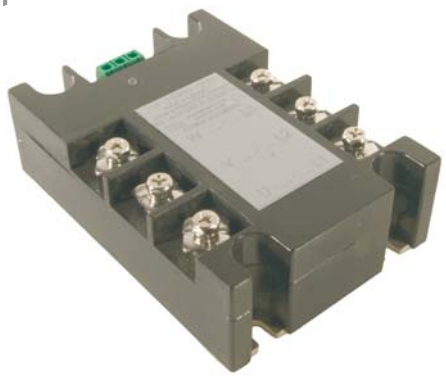

RSH-036


RSH-038


RSH-039


RSH-037

Motor reversing SSR (AC load)



» Motor reversing solid state relay, AC.
» 2 input ranges: 10 - 30 VDC and 90 - 115 VAC.
» Maximum load power: 1 KW and 5 KW.
» Operational ratings: 24 - 530 VAC.
» Frequency range: 47- 63 Hz.
» Maximum non-repetitive peak voltage: 1,200 Vp.
» LED indicator (green: forward; yellow: reverse).

Overview

This relay is used to invert the turn direction of an engine, which will depend on the input circuit. If the system is fed between the terminals F and GND, the triphase network will work in a direct way; if it is fed between R and GND, the direction of the engine will be inverted.

Input control	Output connection
GND - F	R → U S → V T → W
GND - R	R → W S → V T → U

Models and references

Control voltage	Rated operational voltage	Maximum load power	Reference
10 - 30 VDC	24 - 530 VAC	1 KW	RS1ARP030DC5301K3Z
		5 KW	RS1ARP030DC5305K3Z
90 - 115 VAC			RS1ARP115AC5305K3Z

Specifications

GENERAL SPECIFICATIONS	VDC input	VAC input
Dielectric insulation (between input and output)	2,500 VAC	
Operating temperature	-30 to 80° C	
Storage temperature	-35 to 85° C	
Rth junction to case	0.25° C/W	0.22° C/W
Ambient humidity	Up to 85 %	
CE marking	Yes	

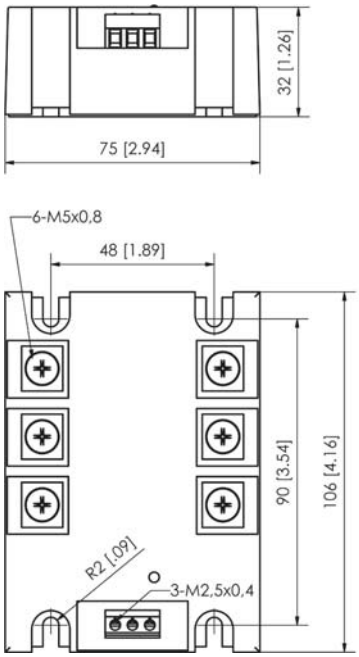
INPUT SPECIFICATIONS	VDC input	VAC input
Control voltage range	10 - 30 VDC	90 - 115 VAC
Maximum input current	30 mA	35 mA
Pick-up voltage	8 VDC	85 VAC
Drop-out voltage	4 VDC	30 VAC
Maximum reverse voltage	30 VDC	-
Max. response time pick-up	½ cycle	
Max. response time drop-out	½ cycle	

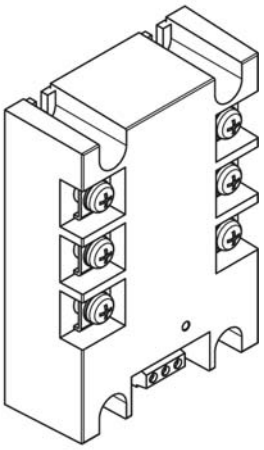
HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	104 x 74 x 40
Weight	430 g maximum
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1.2 Nm
Power terminal (M5x9) torque	2.4 Nm

OUTPUT SPECIFICATIONS	VDC input		VAC input
Maximum load power	1 KW	5 KW	5 KW
Load voltage range	24 - 530 VAC		
Maximum load current range	25 A	60 A	
Frequency range	47 - 63 Hz		
Max. non-repetitive peak voltage	1,200 Vp		
Max. non-repetitive peak current (t = 20 ms)	350 Ap	850 Ap	
Maximum off state leakage current	8 mArms		
Minimum off state dv / dt	500 V / µseg		
Maximum on state voltage	1.6 VAC	1.8 VAC	
Minimum load current	0.1 A		
I^2t (10 ms) (orientative data)	625 A^2s	3,600 A^2s	

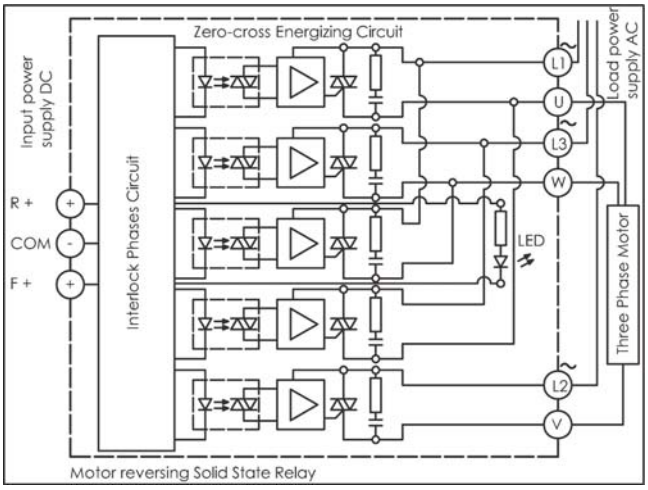
Motor reversing SSR (AC load)

Dimensions



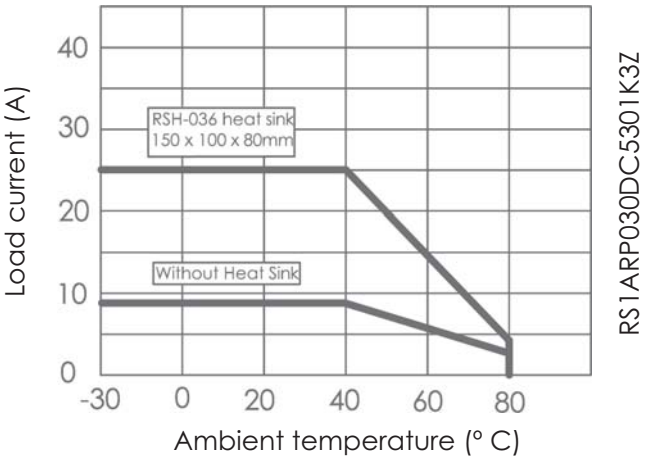


Circuit diagram

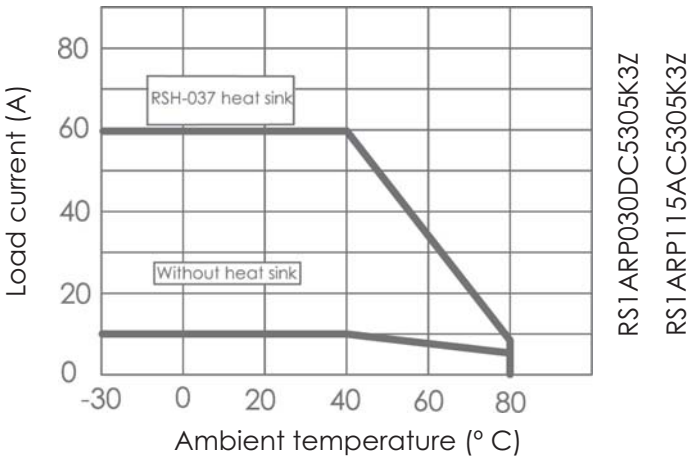


Load current vs. ambient temperature

Motor reversing relay - 1 KW

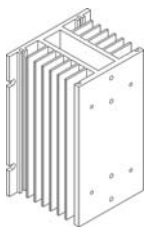


Motor reversing relay - 5 KW

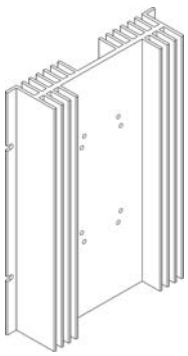


Heat sinks

Reference	Output current	Dimensions	Relays to be used with
RSH-036	<= 40 A	150 x 100 x 80	RS1ARP030DC5301K3Z
RSH-037	<= 80 A	260 x 180 x 50	RS1ARP030DC5305K3Z RS1ARP115AC5305K3Z



RSH-036



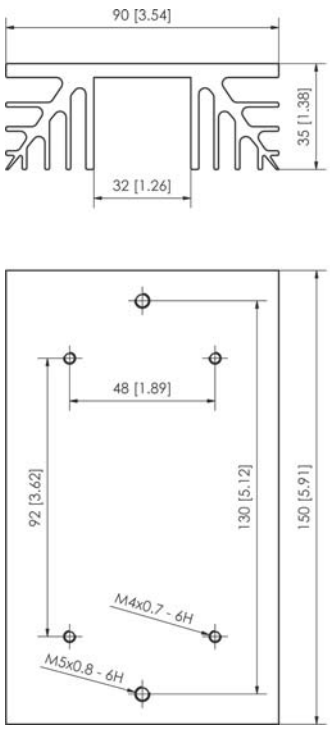
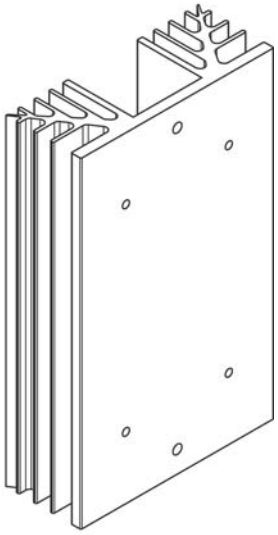
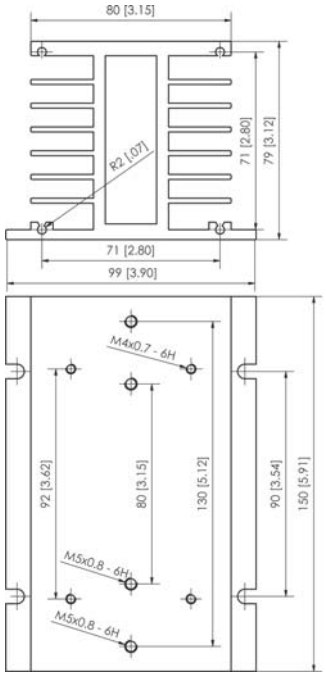
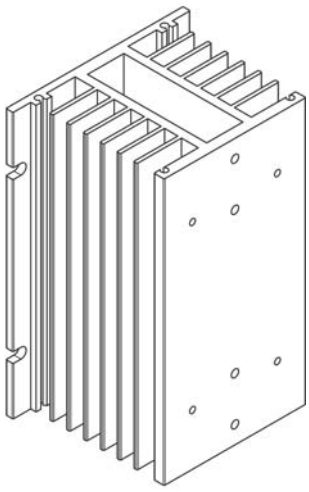
RSH-037

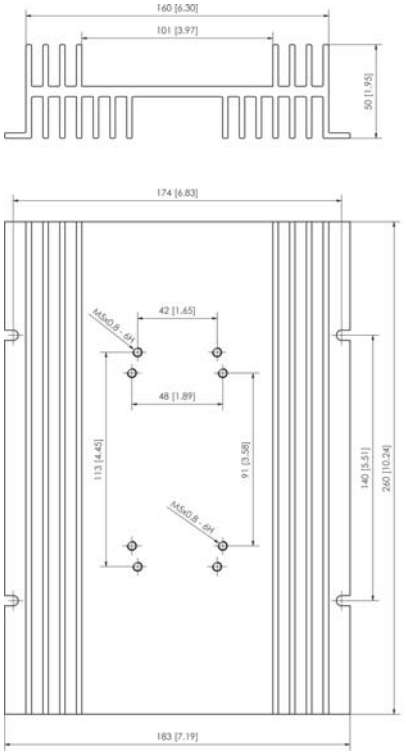
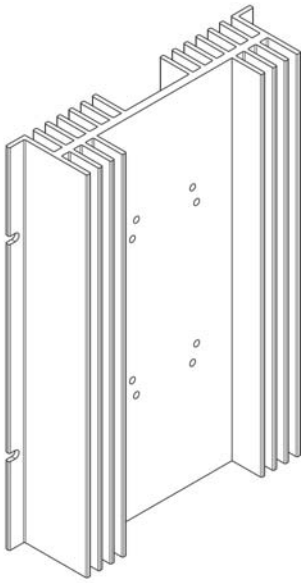
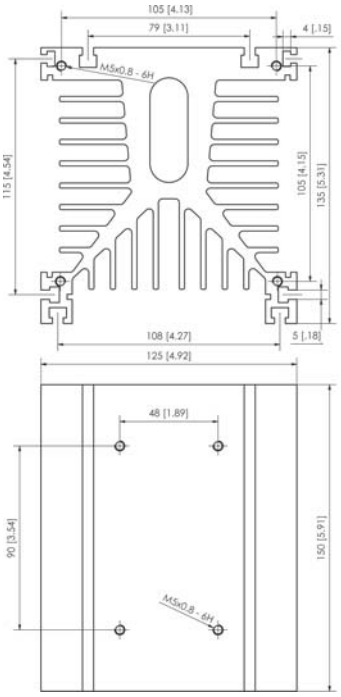
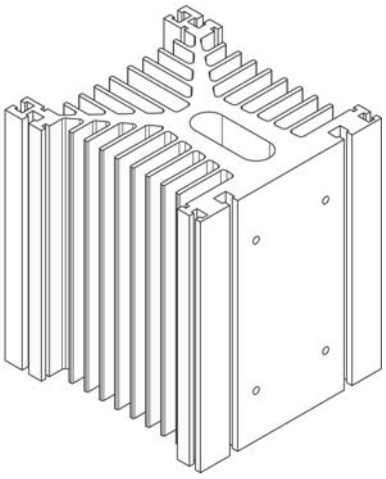
Heat sinks for solid state relays

Overview

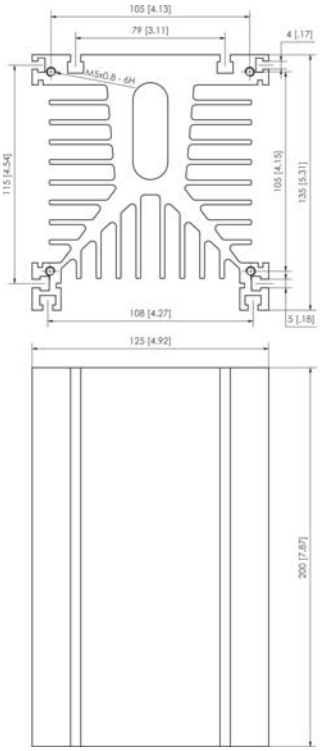
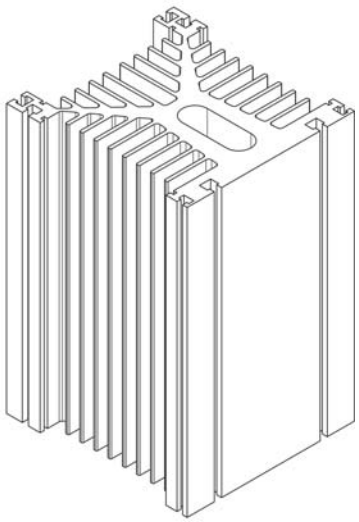
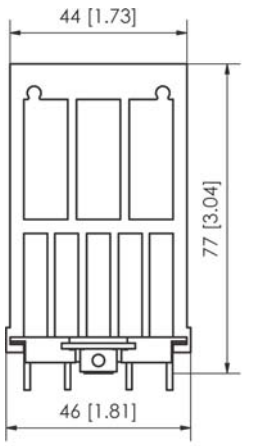
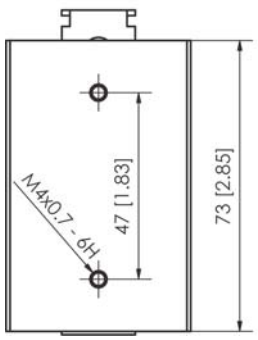
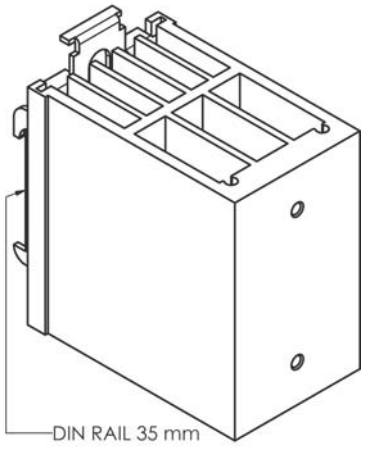
Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A. The following is a list of Relequick's available heat sinks, a full range that covers the requirements of all out solid state relays.

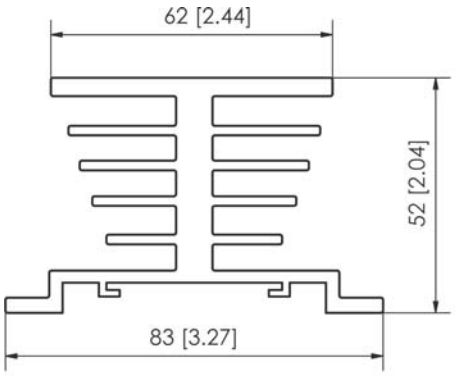
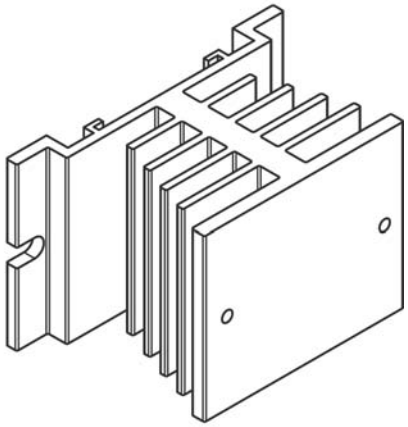
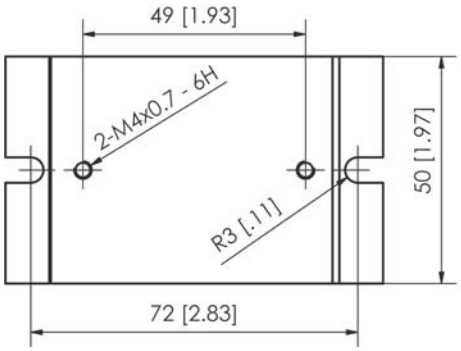
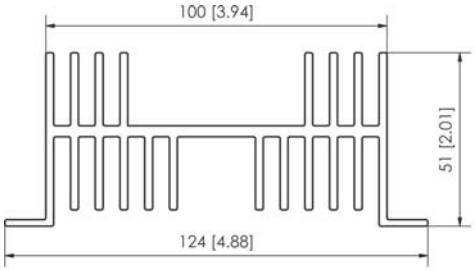
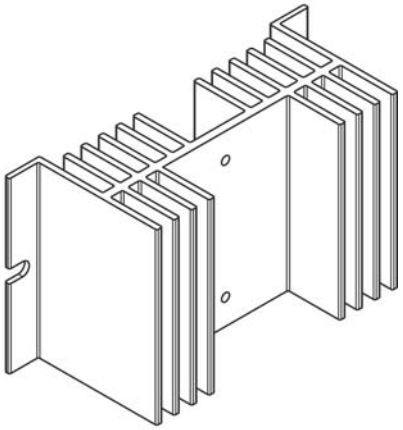
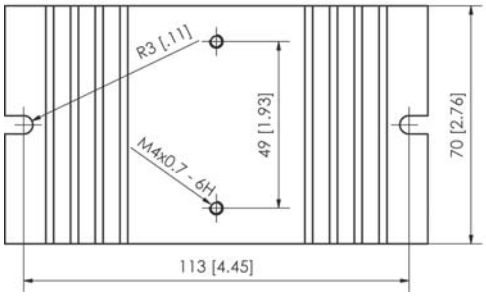
Heat sinks

Reference	Current	Dimensions
RSH-035	<= 20 A	  
RSH-036	<= 40 A	  

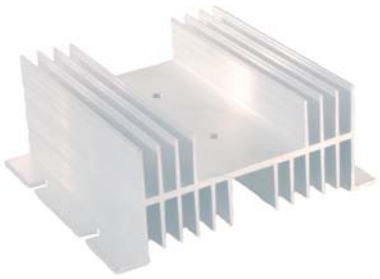
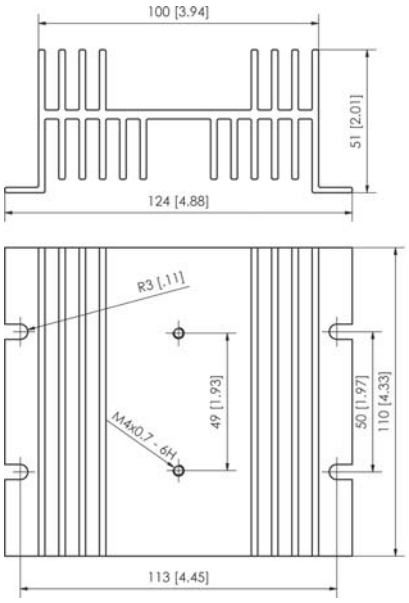
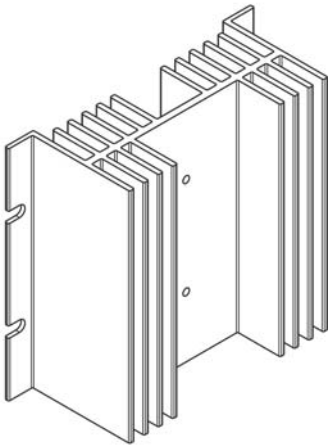
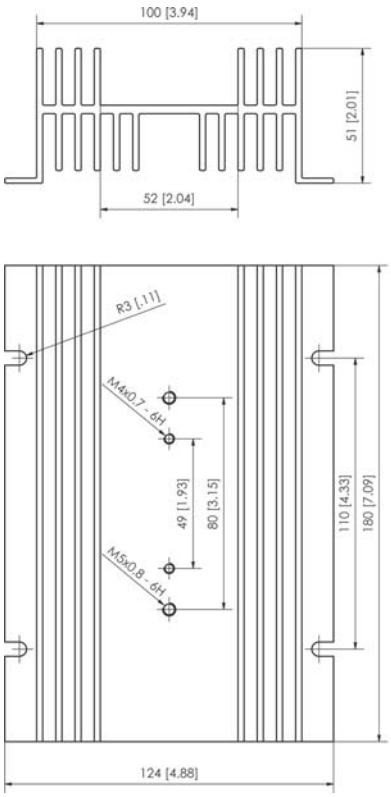
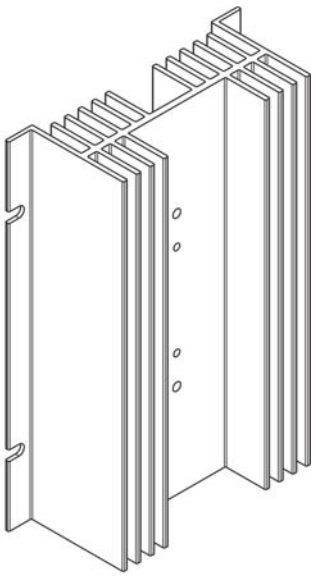
Reference	Current	Dimensions
RSH-037	<= 80 A	  
RSH-038	<= 100 A	  

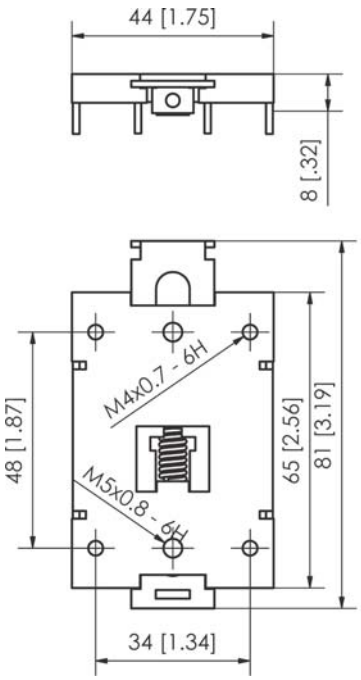
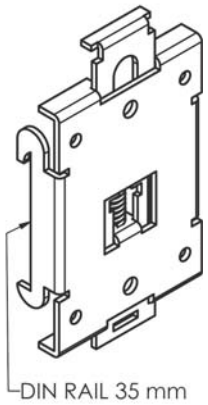
Heat sinks for solid state relays

Reference	Current	Dimensions
RSH-039	<= 200 A	  
RSH-059	<= 20 A	   

Reference	Current	Dimensions
RSH-060	<= 20 A	   
RSH-061	<= 40 A	   

Heat sinks for solid state relays

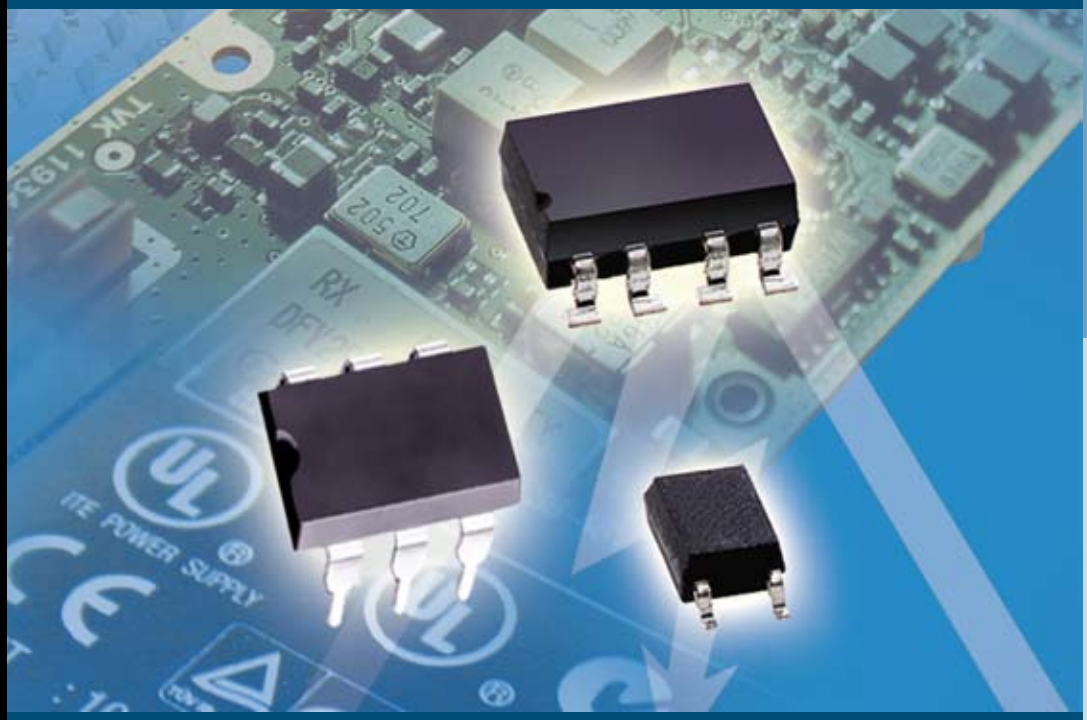
Reference	Current	Dimensions
RSH-062	<= 60 A	  
RSH-063	<= 100 A	  

Reference	Current	Dimensions
RSH-MR	<= 5 A	  

VISHAY INTERTECHNOLOGY, INC.

OPTOELECTRONICS

SELECTOR GUIDE



SOLID STATE RELAYS

www.vishay.com

Solid State Relays

Reliable and Versatile

Solid-State Relays from Vishay Semiconductors

Vishay's Solid State Relays (SSRs), previously sold under the Infineon, Siemens, and AT&T brand names, deliver fast switching while optically isolating and protecting equipment from damaging external high-voltage spikes. By eliminating the majority of wire bonds found in other SSRs, Vishay's monolithic structure has set the performance standard.

With no moving parts, our solid state relays are noiseless, bounce-free and reliable, commonly replacing electromechanical relays. Used in industrial, automotive, and communication applications, all of our solid state relays feature low power consumption, small packaging, and low turn-on current. Exceeding industry standards, they are approved by VDE, UL, CSA and other safety regulatory agencies.

Part Number Coding

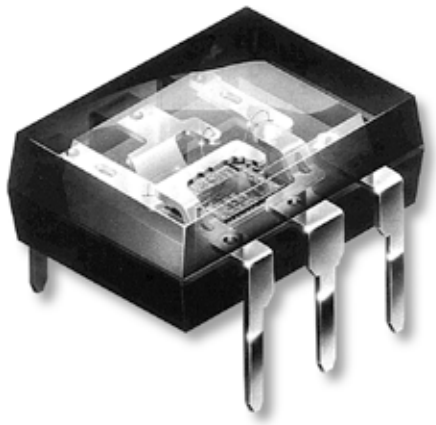
VO1400 A EF TR
LH1541 A AC 1

- 1 = No DC contact for 6-pin package, at Pin 5
- TR = packaged in tape and reel configuration

Package Configuration
1 or 2 Alpha Suffix designator
- B = 8-pin DIP
- D = 4-pin DIP
- T = 6-pin DIP
- AB = 6-pin Gull Wing
- AC = 8-pin Gull Wing
- CC = 8-pin "S" Bend Gull Wing
- CD = 8-pin SOP
- EF = 4-pin SOP
- DF = 4-pin Gull Wing

Electrical Variation
- A = No variation from test specification
- B,C, etc. = Test specification variation

Device Identifier



www.vishay.com/ref/solid_state_relays

FAQs

1. **What are the advantages of SSRs over electromechanical relays (EMRs)?** Reliable, long life, no noise, contact bounce or arcing and low power consumption. (75 % lower than EMR)
2. **Do you have a low cost SSR for use in place of EMRs?** The LH1546AEF/AD (4 pin) depending on your application requirements. Other possibilities are: LH1529FP; LH1532FP; LH1550 products.
3. **Can your SSRs meet my projects' requirement for at least 2500-3000 I/O voltage?** Most of our SSRs provide 5300 I/O.
4. **Do you have High Speed MOSFET Drivers?** Yes, we have the LH1262 which can be configured for best use in motor drive controls, IGBT-predrivers and AC/DC power inverters. It can also be used to customize and build your own custom solid state relay.
5. **Do you have a relay for high frequency applications e.g. T1/E1?** Yes, the LH1514 allows the ultimate in component isolation. It serves as a general purpose 2 Form A for balance sequence, high activation rate, DSO, DSI, DSIA; DSIC; DS2 and low Ron. See Appnote 67 for additional T1 switching information.
6. **Do you have relays which can be used in PCMCIA applications?** Yes, depending on your functional, package size and application requirements, see our LH1529FP and LH1532FP, and our LH1525ACD.
7. **Do you have relays which can be used in modem and PC applications?** Yes, we have several for modems in general. Based on your switching and Ron application requirements: LH1529FP, LH1532FP, LH1546, LH1540, LH1550. See Appnote 66 Modem Line Interface Solutions.
8. **How do I know which Agency approvals are available?** All SSRs are Underwriters Laboratories (UL) recognized. Most have Canadian Standards Association (CSA) and British Approvals Board for Telecommunications (BABT) IEC 950 EN60950, FIMKO IEC 950 EN60950 and VDE 0884 certifications. See our website for information on a specific product.

Package	Pins	Part Number	Output Characteristics								Input Characteristics		
			Load Voltage Max. (V)	Load Current Max. Recommended (mA)		On-Resistance Max. at 25 °C (Ω)		Current Limit (mA) Typ. at 25 °C I_F = 5 mA	Operate Time (msec) Max. at 25 °C I_F = 5 mA		LED Operate Current Min. (mA)		I/O Isolation (Min.) (V_{rms})
				AC/DC	DC	AC/DC	DC	AC/DC	t_{on}	t_{off}	25 °C Test Specs	Recommended Current for 85 °C Operation	
1 Form A	4	LH1546[5]	350	120	—	35	—	—	3.0	3.0	2.0	5.0	3000
		VO1400AEFTR[5]	60	100	—	5	—	—	0.5	0.5	0.3	3.2	1500
1 Form A	6	LH1510[9]	200	200	350	15	3.75	360	2.0*	2.0*	2.0	5.0	5300
		LH1500	350	150	250	25	6.25	270	2.0	2.0	2.0	5.0	5300
		LH1540	350	120	250	25	6.25	210	2.0	2.0	2.0	5.0	5300
		LH1546	350	120	200	35	10	200	3.0	3.0	2.0	5.0	5300
		LH1550[1]	350	100	—	50	—	200	3.0	3.0	2.0	5.0	5300
		LH1525	400	120	250	33	8.25	210	1.0	1.5	0.5	2.0	5300
		LH1541[1]	200	50	—	160	—	—	0.5	0.5	2.0	5.0	5300
		VO14642	60	1000	2000	0.25	0.07	—	0.8*	0.8*	2.0	1.3	5300
2 Form A	8	LH1513	200	140	—	15	—	360	2.5*	2.5*	3.0	8.0	5300
		LH1503	350	110	—	25	—	270	2.5*	2.5*	3.0	8.0	5300
Dual 1 Form A	8	LH1522	200	140	—	15	—	360	2.0*	2.0*	2.0	5.0	5300
		LH1544[1]	200	40	—	160	—	—	0.5	0.5	2.0	5.0	5300
		LH1505	250	120	—	20	—	200	4.0	4.0	2.0	5.0	5300
		LH1520	350	110	—	25	—	270	2.0	2.0	2.0	5.0	5300
		LH1526	400	100	—	36	—	210	1.0	1.5	0.5	5.0	5300
		LH1532[5]	350	110	—	25	—	210	2.0	2.5	2.5	5.0	5300
		LH1533	350	70	—	50	—	200	3.0	3.0	2.5	5.0	5300
		LH1556[5]	350	110	—	35	—	210	3.0	3.0	2.0	5.0	5300
1 Form B	6	LH1511	200	200	300	15	3.75	—	3.0*	3.0*	2.0	5.0	3750
		LH1501	350	150	200	25	6.25	—	3.0	3.0	2.0	5.0	3750
Dual 1 Form B	8	LH1521	350	110	—	25	—	—	3.0	3.0	2.0	5.0	3750
		LH1523	200	140	—	15	—	—	3.0*	3.0*	2.0	5.0	3750
1 Form A, B/C	8	LH1502[2]	350	150	—	25	—	290	6.0*	3.0*	2.0	5.0	3750
		LH1512	200	200	—	15	—	360	3.0*	3.0*	2.0	5.0	3750
1 Form A w/Optocoupler	8	LH1529[5,6,7]	350	120	—	25	—	210	2.5	2.5	2.0	5.0	5300
		LH1549[6]	400	120	—	36	—	210	1.0	1.0	0.5	3.0	5300
1 Form A w/Darlington	8	LH1539[8]	400	120	—	33	—	210	2.0	0.5	1.0	5.0	5300
High Freq. (T-1)	8	LH1514[3]	15	150	—	5	—	—	1.0*	1.0*	3.0	8.0	5300
MOSFET Driver	8	LH1262	15	—	14 µA*	—	—	—	35 µs**	90 µs**	—	—	5300
		VO1263	15	—	23 µA*	—	—	—	26 µs**	73 µs**	—	—	5300

* I_F = 10 mA

** I_F = 20 mA

1. Low capacitance SSR (3.5 pF)
2. Break-before-make operation
3. High-frequency SSR (< 50 MHz)
4. Current through both poles operating simultaneously. Load current for individual pole ratios is higher
5. Surface mount Flat-Pack available
6. Current transfer ratio min. 33 %
7. Current transfer ratio min. 100 %
8. Current transfer ratio >300 %
9. DC current limit 720 mA

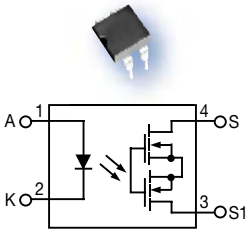
Cross Reference Guide

AROMAT — VISHAY	
AQV101	LH1510
AQV101	LH1518
AQV102	LH1510
AQV102	LH1518
AQV103	LH1510AT
AQV103A*	LH1510AAB
AQV104A	LH1500AAB
AQV214	LH1525AT
AQV214A	LH1525AAB
AQV214S	LH1525ACD
AQV217	LH1510AT
AQV217A	LH1510AAB
AQV221	LH1541AT1
AQV221A	LH1541AAB
AQV225	LH1541AT
AQV225A	LH1541AAB1
AQV234	LH1525AT
AQV234A	LH1525AAB
AQV254A	LH1500AAB
AQV414	LH1501AT
AQV414A	LH1501AAB
AQW210TS	LH1529FP
AQW210E	LH1532FP
AQW210E	LH1556FP
AQW214	LH1520AB
AQW214	LH1526AB
AQW214A	LH1520AAC
AQW214A	LH1526AAB
AQW614A	LH1502BB
AQW614A	LH1502BAC
CLARE — VISHAY	
CPC1017N	VO1400AEF
CPC1017NTR	VO1400AEFTR
CPC1035	LH1546AEF
CPC1050	LH1546AEF
LAA100P	LH1532FP
LAA100P	LH1556FP
LAA110/E	LH1532AB
LAA110/E/ES	LH1532AAC
LAA120/E	LH1505AB
LAA120/ES/S	LH1505AAC
LBA110/E	LH1502BB
LBA110/ES/S	LH1502BAC
LBA120/E	LH1512BB
LBA120ES/S	LH1512BAC
LBA127/E	LH1512BB
LBA127ES/S	LH1512BAC
LBA145/E	LH1502BB
LBA145/ES/S	LH1502BAC
LBA146/E	LH1502BB
LBA146/ES/S	LH1502BAC
LBB110/E	LH1521BB
LBB110ES/S	LH1521BAC
LBB120/E	LH1523BB
LBB120ES/S	LH1523BAC
LCA110/E	LH1500AT
LCA110/E	LH1540AT
LCA110/ES/S	LH1500AAB
LCA110/ES/S	LH1540AAB
LCA110L/LE	LH1500AT
LCA110LS/LES	LH1500AAB
LCA111	LH1500AT
LCA111E	LH1550AT1
LCA111ES	LH1550AAB1
LCA111S	LH1500AAB
LCA142/E	LH1510AT
LCA190/E/LE	LH1500AT
LCA190/ES/LES	LH1500AAB
LCA190/L/LE	LH1500AT
LCA190/LES/LS	LH1500AAB
LCA120E/L/LE	LH1518AT
LCA120ES/LES/LS/S	LH1500AAB
LCA125E/L/LE	LH1510AT
LCA125ES/LES/LS/S	LH1518AT
LCA127E	LH1510AT
LCA127ES/S	LH1518AT
LCA142E	LH1510AT
LCA143	LH1550AT
LCA143E	LH1540AT
LCA145/E	LH1500AT
LCA145/ES/S	LH1500AAB
LCA210/E	LH1503AB
LCA210ES/S	LH1503AAC
LCA220/E	LH1513AB
LCA220/ES	LH1513AAC
LCA710	VO14642AT
LCA710STR	VO14642AABTR
LCB110/E	LH1501BT
LCB110/ES/S	LH1501BAB
LCB111/E	LH1501BT
LCB111/ES/S	LH1501BAB
LCB120/E	LH1511BT
LCB120/ES/S	LH1511BAB
LCB127/E	LH1526AB
LCB127ES/S	LH1526AAC
LCC110/E	LH1502BB
LCC110/ES/S	LH1512BAC
LCC120/E	LH1502BB
LCC120/ES/S	LH1512BAC
OMA130/E	LH1510AT
OMA130ES/S OMA160/E	LH1518AT
OMA160/E	LH1541AAB1
OMA210	LH1503BB
OMA221	LH1503BAC
OMA160/ES/S	LH1541AT1
OMA160A	LH1541AAB1
OAA160/E	LH1544AB
OAA160/E	LH1544AAC
PAA110/E	LH1526AB
PAA110/ES/S	LH1526AAC
PLA110/E	LH1525AT
PLA110/ES/S	LH1525AAB
PLA140/E	LH1510AT
PLA140/ES/S	LH1518AT
PLA150/E	LH1510AT
PLA150/ES/S	LH1518AT
TS117E	LH1529AB
TS117ES	LH1529AAC
TS120E	LH1529BB
TS120S	LH1539AAC
TS120ES	LH1529BAC
TS190E	LH1549AB
TS190ES	LH1549AAC
XCA110/E	LH1550AT1
XCA110/ES	LH1550AAB1
XCA110/ES/S	LH1500AAB
XCA110/ES/S	LH1530AAB
XCA110/ES/S	LH1550AAB1
XCA111/L	LH1546AT
XCA111/L	LH1550AT1
XCA111/LE	LH1546AT
XCA120/E	LH1510AT
XCA120/ES	LH1510AAB
DIONICS — VISHAY	
DIG130A	LH1262CB
DIG131A	LH1262CB
DIG132A	LH1262CB
DIG22830-DD	LH1262CB
FAIRCHILD — VISHAY	
HSR312	LH1510AT
HSR312L	LH1510AT
HSR412	LH1540AT
HSR412L	LH1546AT
HP — VISHAY	
HSSR-8060	LH1510AT
HSSR-8060	LH1518AT
HSSR-8200*	LH1541AT1
HSSR-8400	LH1510AT
HSSR-8400	LH1518AT
HSSR-7110	No Cross
HSSR-7111	No Cross
HSSR-7112	No Cross
5962-9314001	No Cross
5962-9314002	No Cross
IR — VISHAY	
PV15100	LH1262CB
PVA1052	LH1510AT
PVA1054	LH1510AT
PVA1352	LH1510AT
PVA1352	LH1518AT
PVA1354	LH1510AT
PVA1354	LH1518AT
PVA2352	LH1510AT
PVA3324	LH1500AT
PVA3354	LH1530AT
PVR1300	LH1513AT
PVR1301	LH1513AB
PVR2300	LH1513AB
PVR3300	LH1503AB
PVR3301	LH1503AB
PVY116-T	VO1400AEFTR
NEC — VISHAY	
PFA101A	LH1510AT
PFA101A	LH1518AT
PFA112A	LH1510AT
PFA112A	LH1518AT
PFA113A	LH1510AT
PFA113A	LH1518AT
PFA121A	LH1510AT
PFA121A	LH1518AT
PFA122A	LH1510AT
PFA122A	LH1518AT
PFD141A	LH1510AT
PFD141A	LH1518AT
PFD102A	LH1510AT
PFD112A	LH1510AT
PFD114A	LH1510AT
PFD114A	LH1518AT
PFD123A	LH1510AT
PFD123A	LH1518AT
PFD142A	LH1510AT
PFD142A	LH1518AT
PS710A-1A	VO14642AT
PS710AL-1L-E3	VO14642AABTR
PS7200B-1A-F3	VO1400AEFTR
OKI — VISHAY	
OCM200	LH1510AT
OCM202	LH1518AT
OCM210	LH1510AT
OCM212	LH1518AT
OCM214	LH1541AT1
OCM220	LH1510AT
OCM220	LH1518AT
OCM222	LH1510AT
OCM222	LH1518AT
OCM224	LH1541AT1
OCM240	LH1510AT
OCM240	LH1518AT
OCM241	LH1510AT
OCM241	LH1518AT
OCM242	LH1510AT
OCM242	LH1518AT
OKITA — VISHAY	
ADM1M21	LH1510AT
ADM1M41	LH1518AT
AD2M22	LH1520AB
PANASONIC — VISHAY	
AQV252	VO14642AT
AQV252AX	VO14642AABTR
AQY221R2VY	VO1400AEFTR
SOLID STATE OPTRONICS — VISHAY	
AD4-C111	LH1532AB
AD4-C111	LH1526AB
AD4-C112	LH1521BB
AD4-C113	LH1502BB
AD6-C111	LH1540AT
AD6-C111	LH1525AT
AD6-C112	LH1511BT
AD6-C211	LH1510AT
AD6-C211	LH1518AT
AD8-C111	LH1540AT
AD8-C111	LH1525AT
AD8-C112	LH1511BT
AD8-C211	LH1510AT
AD8-C211	LH1518AT
M271-TR	VO1400AEFTR
TOSHIBA — VISHAY	
TLP172A	VO1400AEFTR
TLP595G	LH1510AT
TLP595G	LH1518AT
TELEDYNE — VISHAY	
C60-3	LH1510AT
C60-3	LH1518AT
C60-10	VO14642AT
SC60-10	VO14642AABTR
TH ELECTRONICS — VISHAY	
THR 003-400	LH1510AT
THR 003-400	LH1518AT
THR 010-200	LH1510AT
TOWARD RELAY — VISHAY	
AB30S	LH1546AEF
AB42S	No Cross
AB30F	LH1525AT
AA31F	LH1540AT
AA37F	No Cross
AC30F	LH1503AB
AC31F	LH1503AB

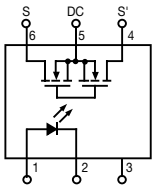
Solid State Relays

Protection Through Optical Isolation

DIP/ MiniFlat



1 Form A*



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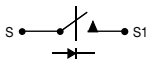

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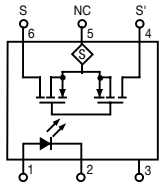

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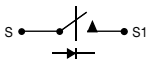

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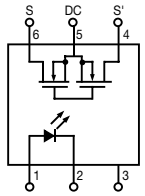

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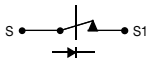
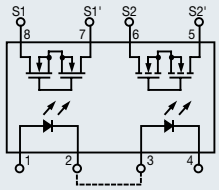


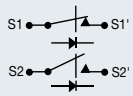
6-Pin DIP/SMD

* Form A "normally open"; Form B "normally closed"

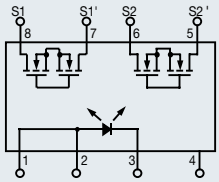
1 Form A/B, C



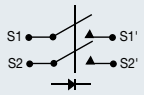
1 Form A, B, C



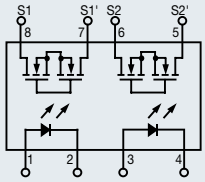
2 Form A*



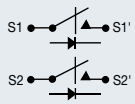
2 Form A



Dual 1 Form A*



Dual 1 Form A



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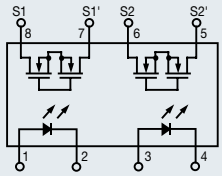

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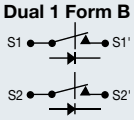
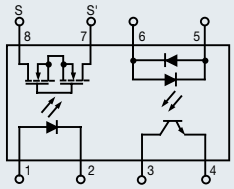
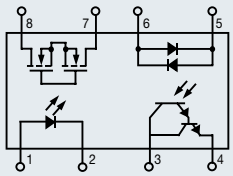


8-Pin DIP/SMD

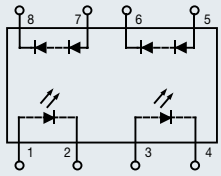
1 Form A/Optocoupler



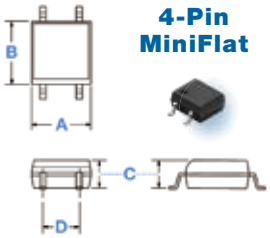
1 Form A/Darlington



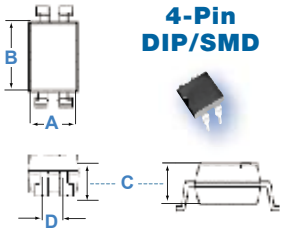
MOSFET Driver



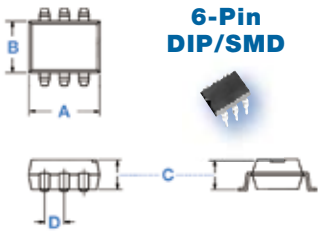
4-Pin MiniFlat



4-Pin DIP/SMD

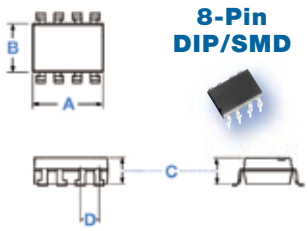


6-Pin DIP/SMD



DIP body dimensions are the same as the SMD version presented on this drawing.

8-Pin DIP/SMD



DIP body dimensions are the same as the SMD version presented on this drawing.

MiniFlat	4-Pin*	8-Pin*
A	0.174 (0.442)	0.374 (9.61)
B	0.180 (4.70)	0.180 (4.70)
C	0.080 (2.03)	0.080 (2.03)
D	0.100 (2.54)	0.100 (2.54)

Typical* dimensions = inches (mm)

SMD/DIP	4-Pin*	6-Pin*	8-Pin*
A	0.261 (6.62)	0.343 (8.60)	0.385 (9.78)
B	0.300 (7.62)	0.300 (7.62)	0.300 (7.62)
C	0.140 (3.35)	0.140 (3.30)	0.140 (3.30)
D	0.100 (2.54)	0.100 (2.54)	0.100 (2.54)

Typical* dimensions = inches (mm)

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Item # 6312AXXMDS-DC3 Class 6 Solid State Relay / SPST-NO, 10 Amp Rating

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Class 6 Solid State Relay / SPST-NO, 10 Amp Rating

Class 6 Series:

- Hockey puck design
- Finger-safe cover*
- LED status indicator
- Optically coupled circuitry

*Available for products up to 40 Amps (AC) and 12 Amps (DC).

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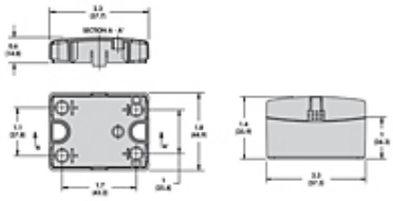

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MORE IMAGES

- 6 Wiring Diagram
- 6 Part Description
- Max. Ambient Temperature at 10A

VIEW CAD DRAWING

- Front View
- Right Side View
- 3D

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Catalog PDF(PDF)

Heat Sink

SSR-HS-1
Heat Sink

Specifications · Output Characteristics · Input Characteristics · Performance Characteristics · Environment · Miscellaneous Characteristics · Product Certifications

Specifications

Component Type	Solid State
Mounting Type	Panel Mount
Superceding Part No.	W6212DDX-1
Contact Rating	10 A
Contact Configuration	SPST-NO
Output Voltage Range	3 to 200 VDC
Load Type	DC
Switching Type	DC Switching

Output Characteristics

Switching Device	MOSFET
Switching Voltage	3 to 200 VDC
Min. Load Current to Maintain On	20 mA
Non-Repetitive Surge Current (1 cycle)	27 A
Max. Off State Leakage Current [rms]	8 mA
Typical On State Voltage Drop [rms]	1.6 V
Max. On State Voltage Drop [rms]	2.83

Input Characteristics

Voltage Range	3 to 32 VDC
Must Release Voltage	1 VDC
Nominal Input Impedance	1000 Ohm
Reverse Polarity Protection	No

Performance Characteristics

Electrical Life (UL508), Operations at Rated Current (Resistive)	100000
Mechanical Life, Unpowered	10000000
Operating Time (Response Time) - On	300 µs
Operating Time (Response Time) - Off	1 ms
Rated Insulation Voltage, Input to Output	2500 VAC
Dielectric Strength, Terminals to Chassis	2500 VAC

Environment

Ambient Air Temperature around the Device - Storage	-40 to +100 °C
Ambient Air Temperature around the Device - Operation	-40 to +80 °C
Degree of Protection	IP 20

Miscellaneous Characteristics

Thermal Resistance (Junction to Case)	1.06 °C/W
LED Input	Green
Input Terminal	M3.5
Output Terminal	M4

Product Certifications

Agency Approvals	UL CE CSA

Solid State Relays – Application Data

Definition: A SSR (solid state relay) can perform many tasks that an EMR (electromechanical relay) can perform. The SSR differs in that it has no moving mechanical parts within it. It is essentially an electronic device that relies on the electrical, magnetic and optical properties of semiconductors, and electrical components to achieve its isolation and relay switching function.

Principle of Operation: Solid State Relays are similar to electromechanical relays, in that both use a control circuit and a separate circuit for switching the load. When voltage is applied to the input of the SSR, the relay is energized by a light emitting diode. The light from the diode is beamed into a light sensitive semiconductor which, in the case of zero voltage crossover relays, conditions the control circuit to turn on the output solid state switch at the next zero voltage crossover. In the case of nonzero voltage crossover relays, the output solid state switch is turned on at the precise voltage occurring at the time. Removal of the input power disables the control circuit and the solid state switch is turned off when the load current passes through the zero point of its cycle.

Applications: Since its introduction the SSR, as a technology, has gained acceptance in many areas, which had previously been the sole domain of the EMR or the Contactor. The major growth areas have come from Industrial Process Control applications; particularly heat/cool temperature control, motors, lamps, solenoids, valves, and transformers. The list of applications for the SSR is almost limitless.

The following are typical examples of SSR applications: industrial automation, electronic appliances, industrial appliances, packaging machines, tooling machines, manufacturing equipment, food equipment, security systems, industrial lighting, fire and security systems, dispensing machines, production equipment, on-board power control, traffic control, instrumentation systems, vending machines, test systems, office machines, medical equipment, display lighting, elevator control, metrology equipment, and entertainment lighting.

Advantages: When used correctly in the intended application, the SSR provides many of the characteristics that are often difficult to find in the EMR; a high degree of reliability, long service life, significantly reduced electromagnetic interference, fast response and high vibration resistance are significant benefits of the SSR. The SSR has no moving parts to wear out or arcing contacts to deteriorate, which are often the primary cause of failure with an EMR.

- Long life (reliability) > 10^9 operations
- Zero voltage turn on, low EMI / RFI
- Shock and Vibration resistant
- Random turn-on, proportional control
- No contact bounce
- Arc-less switching
- No acoustical noise
- Microprocessor compatible
- Fast response
- No moving parts

Thermal Considerations: One of the major considerations when using a SSR is properly managing the heat that is generated when switching currents higher than about 5 amps. In this scenario one must mount the base plate of the SSR onto a good heat conductor, typically aluminum; along with utilizing a good thermal transfer medium such as thermal grease or heat transfer pad. Using this technique, the SSR case to heat sink thermal resistance is reduced to a negligible value of 0.1 °C/W.

The Complete System Solution!

Optional Heat Sink
(SSR-HS-1)
Section 3 p.20

Optional Thermal Pad
(SSR-TP-1)
Section 3 p.21

We at Magnecraft strive to be your one-stop-shop for all of your solid state relay needs. The new line of 6 series solid-state relays give industrial relay users an energy-efficient current switching alternative. Depending on the application, these solid-state relays offer a number of advantages over electromechanical relays, including longer life cycles, less energy consumption and reduced maintenance costs. This is why great care and attention was given when developing the next generation of "Hockey Puck" style SSRs. These new SSRs will be finger-safe , fit a pre-cut heat transfer thermal pad (sold separately) and have the ability to be mounted onto a factory tested pre-drilled and tapped heat sink (sold separately).

Magnecraft's expertise in both SSR design and thermal management enables us to provide customers with a solution to their solid state relay requirements. This solution comes ready-to-use, virtually eliminating in-house assembly and complex heat sink calculations. Furthermore, each SSR, thermal pad (sold separately) and heat sink assembly (sold separately) utilizes the reliability and technology only available in our 6 series solid state relays. These features, coupled with Magnecraft's superior customer service and engineering support team, provide our customers with a level of convenience not easily found in the market today!

Evolut

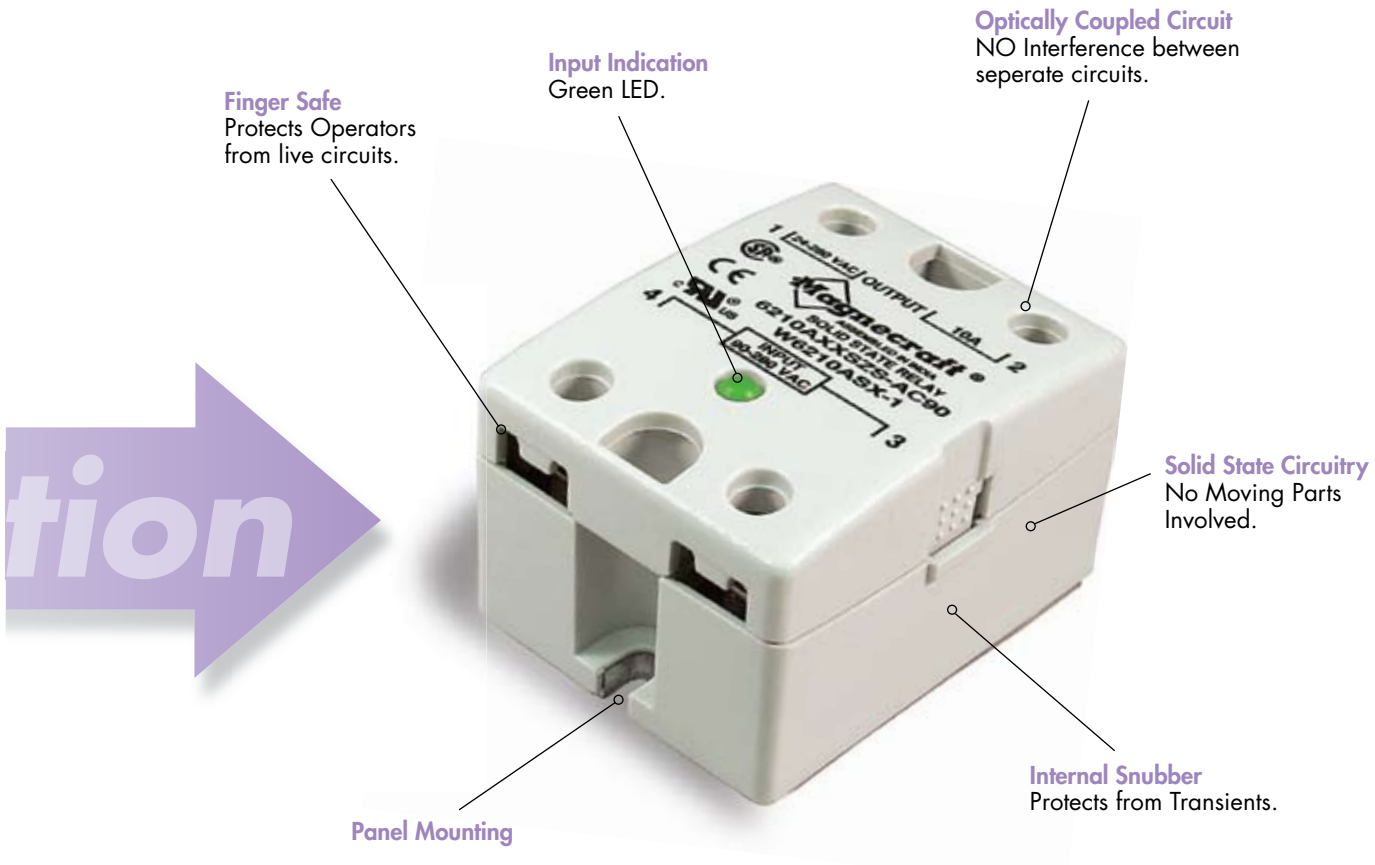
Legacy

The Class 6 is also available with Blade Terminals.

The new finger-safe Class 6* "Hockey Puck" Style Solid State Relay (SSR) expands and enhances the current Magnecraft Solid State Relay product line.

This product features a finger-safe cover and LED Status Indicator. The optically coupled circuitry isolates the input from the output to give pure solid state performance. This product carries with it agency certifications from UL, CSA, and CE.

***Available for products up to 40 Amps (AC Load) and 12 Amps (DC Load).**



New

Thermal Pad
(SSR-TP-1)
Section 3 p.21

Blade Terminals
DPST-NO

Heat Sink
(SSR-HS-1)
Section 3 p.20

6210AXXTZS-DC3	***6425BXXAZB-DC3****	**6312AXXMDS-DC3**	**6325AXXMDS-DC3**	**6340AXXMDS-DC3**
6210DTX-1	*6425DTX-3**	6212DDX-1	6225DDX-1	6240DDX-1
SPST-NO	DPST-NO	SPST-NO	SPST-NO	SPST-NO
Triac	Alternistor	MOSFET	MOSFET	MOSFET
10	25	12	25	40
24....280 AC	48....480 AC	3....200 DC	3....200 DC	3....200 DC
Zero Cross	Zero Cross	DC Switching	DC Switching	DC Switching
250	250	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A
120	80	20	20	20
250	250	27	50	90
80	80	N/A	N/A	N/A
10	10	8	8	8
300	300			
1.6	1.1	1.6	1.6	1.6
1.6	1.6	2.83	2.83	2.83
300	200	N/A	N/A	N/A
3....32	3.5....32	3....32	3....32	3....32
1 DC	1 DC	1 DC	1 DC	1 DC
1.5 K	Current Regulator	1K	1K	1K
2	16	10	10	10
Yes	Yes	No	No	No
8.3	8.3	300 µs	600 µs	600 µs
8.3	8.3	1	2.6	2.6
4000 AC	4000 AC	4000 AC	4000 AC	4000 AC
4000 AC	4000 AC	2500 AC	2500 AC	2500 AC
UR, CSA, CE	UR, CSA, CE	UR, CSA, CE	UR, CSA, CE	UR, CSA, CE
-40...+100	-40...+100	-40...+100	-40...+100	-40...+100
-40...+80	-40...+80	-40...+80	-40...+80	-40...+80
IP 20	IP 20	IP 20	IP 20	IP 20
1.45	1.20	1.06	1.06	1.06
100 (3.5)	100 (3.5)	110 (3.9)	135 (4.8)	135 (4.8)
Green	Green	Green	Green	Green
M3.5	0.187" QC	M3.5	M3.5	M3.5
M4	0.250" QC	M4	M4	M4
1.0	1.0	1.0	1.0	1.0

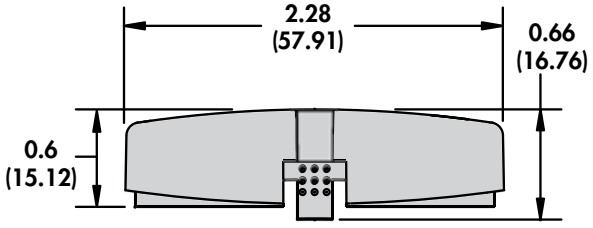
**Blade Terminal*

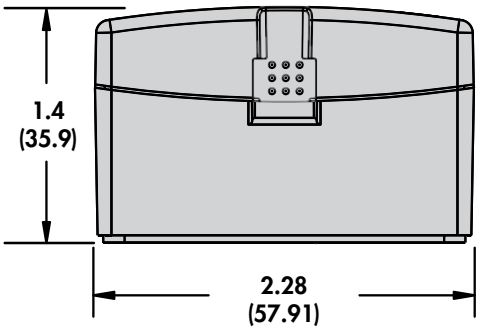
NEW
NEW
NEW
NEW
NEW

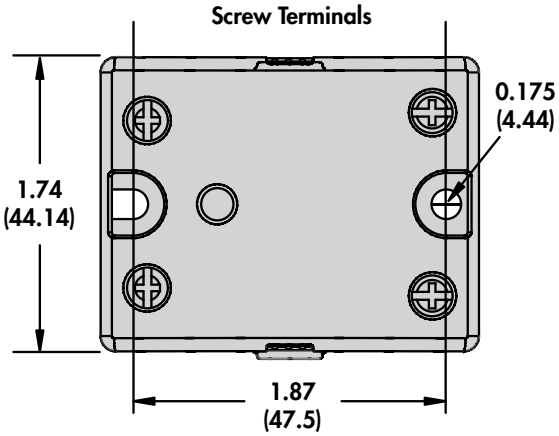
Screw Terminals
SPST-NO

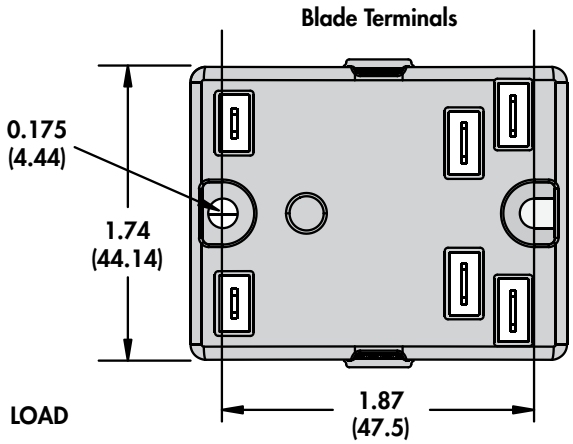
Blade Terminals
DPST-NO

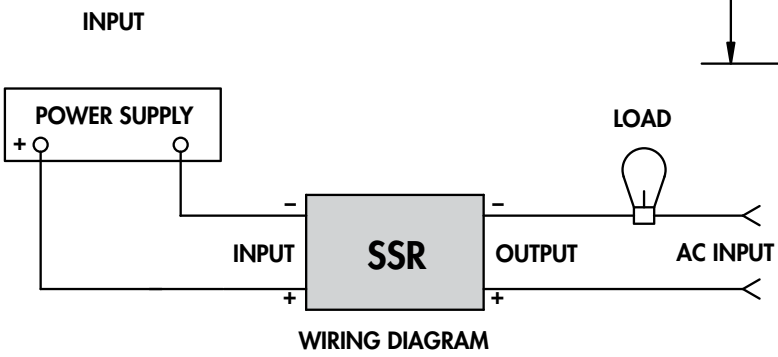
***Finger-safe safety cover is available for products up to 40 Amps.**







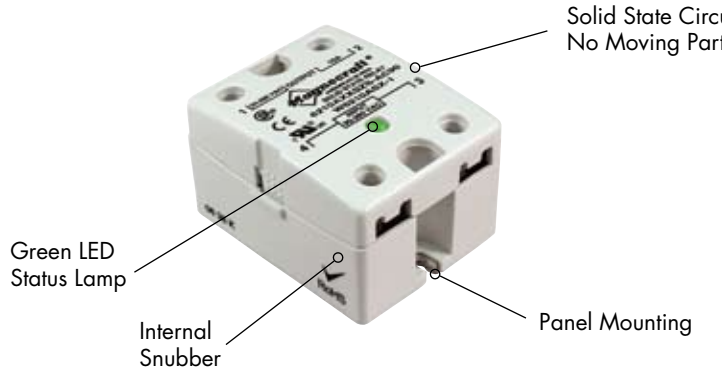




WIRING DIAGRAM

UL Recognized
File No. E258297

NEW
NEW
NEW
NEW
NEW



Standard Part Numbers

BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED

AC Operated, DUAL MARKED		Input Voltage Range	Output Voltage Range	Contact Configuration	Switching Type	Rated Current Load (Amps)
New Part #	**Supercedes**		**SCR Output**			
6210AXXSZS-AC90	W6210ASX-1	90....280 VAC	24....280 VAC	SPST-NO	Zero Cross	10
6225AXXSZS-AC90	W6225ASX-1	90....280 VAC	24....280 VAC	SPST-NO	Zero Cross	25
6240AXXSZS-AC90	W6240ASX-1	90....280 VAC	24....280 VAC	SPST-NO	Zero Cross	40
6250AXXSZS-AC90**	**W6250ASX-1**	90....280 VAC	24....280 VAC	SPST-NO	Zero Cross	50
6275AXXSZS-AC90**	**W6275ASX-1**	90....280 VAC	24....280 VAC	SPST-NO	Zero Cross	75
6410AXXSZS-AC90	W6410ASX-1	90....280 VAC	48....480 VAC	SPST-NO	Zero Cross	10
6425AXXSZS-AC90	W6425ASX-1	90....280 VAC	48....480 VAC	SPST-NO	Zero Cross	25
6440AXXSZS-AC90	W6440ASX-1	90....280 VAC	48....480 VAC	SPST-NO	Zero Cross	40
6450AXXSZS-AC90**	**W6450ASX-1**	90....280 VAC	48....480 VAC	SPST-NO	Zero Cross	50
6475AXXSZS-AC90**	**W6475ASX-1**	90....280 VAC	48....480 VAC	SPST-NO	Zero Cross	75
6690AXXSZS-AC90**	**W6690ASX-1**	90....280 VAC	48....600 VAC	SPST-NO	Zero Cross	90
66125AXXSZS-AC90**	**W66125ASX-1**	90....280 VAC	48....600 VAC	SPST-NO	Zero Cross	125
DC Operated, DUAL MARKED						
New Part #	**Supercedes**					
6210AXXSZS-DC3	W6210DSX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	10
6225AXXSZS-DC3	W6225DSX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	25
6240AXXSZS-DC3	W6240DSX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	40
6250AXXSZS-DC3**	**W6250DSX-1**	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	50
6275AXXSZS-DC3**	**W6275DSX-1**	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	75
6410AXXSZS-DC3	W6410DSX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	10
6425AXXSZS-DC3	W6425DSX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	25
6440AXXSZS-DC3	W6440DSX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	40
6450AXXSZS-DC3**	**W6450DSX-1**	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	50
6475AXXSZS-DC3**	**W6475DSX-1**	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	75
6690AXXSZS-DC3**	**W6690DSX-1**	3....32 VDC	48....600 VAC	SPST-NO	Zero Cross	90
66125AXXSZS-DC3**	**W66125DSX-1**	3....32 VDC	48....600 VAC	SPST-NO	Zero Cross	125
DC Operated, DUAL MARKED						
New Part #	**Supercedes**		**TRIAC Output**			
6210AXXTZS-DC3	W6210DTX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	10
6225AXXTZS-DC3	W6225DTX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	25
6240AXXTZS-DC3	W6240DTX-1	3....32 VDC	24....280 VAC	SPST-NO	Zero Cross	40
6210BXXTZB-DC3	W6210DTX-3	3....32 VDC	24....280 VAC	*DPST-NO*	Zero Cross	10
6210XXATRS-DC3	W6210DTX-4	3....32 VDC	24....280 VAC	*SPST-NC*	*Random*	10
6225XXATRS-DC3	W6225DTX-4	3....32 VDC	24....280 VAC	*SPST-NC*	*Random*	25
6240XXATRS-DC3	W6240DTX-4	3....32 VDC	24....280 VAC	*SPST-NC*	*Random*	40
6410AXXTZS-DC3	W6410DTX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	10
6425AXXTZS-DC3	W6425DTX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	25
6440AXXTZS-DC3	W6440DTX-1	3....32 VDC	48....480 VAC	SPST-NO	Zero Cross	40
DC Operated, DUAL MARKED						
New Part #	**Supercedes**		**MOSFET Output**			
6312AXXMDS-DC3	W6212DDX-1	3....32 VDC	3....200 VDC	SPST-NO	*Random*	12
6325AXXMDS-DC3**	**W6225DDX-1**	3....32 VDC	3....200 VDC	SPST-NO	*Random*	25
6340AXXMDS-DC3**	**W6240DDX-1**	3....32 VDC	3....200 VDC	SPST-NO	*Random*	40

***Only Legacy (superceding) part is currently available.*

OPTOCOUPLERS CROSS REFERENCE

INDEX

SOLID STATE RELAY CROSS REFERENCE

INDEX

Optocoupler Cross Reference

Sharp	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
PC100	No Cross	14 Pin DIP		D	
PC101	No Cross	14 Pin DIP		D	
PC110	PS2651	6 Pin DIP	PS2561-1/PS2501-1 4 Pin Replacement Lower Cost	A	
PC111	PS2652	6 Pin DIP	PS2561-1/PS2501-1 4 Pin Replacement Lower Cost	A	
PC112	PS2651	6 Pin DIP	PS2561-1/PS2501-1 4 Pin Replacement Lower Cost	A	
PC113	PS2652	6 Pin DIP	PS2561-1/PS2501-1 4 Pin Replacement Lower Cost	A	
PC120	PS2561-1	4 Pin DIP		A	
PC121	PS2561-1	4 Pin DIP		A	
PC123	PS2561-1	4 Pin DIP		A	
PC123F	PS2581L1-1	4 Pin DIP		A	
PC353T	PS2801-1	4 Pin SSOP	4 Pin Replacement SSOP Package Lower Cost, Smaller	C	6 Pin vs 4 Pin
PC354	PS2705-1	4 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC355NT	PS2702-1	4 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC356NT	PS2701-1	4 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC357NT	PS2701-1	4 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC3Q64	PS2705-4	16 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC3Q67	PS2701-4	16 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC400	No Cross	IC Type Coupler		D	
PC401	No Cross	IC Type Coupler		D	
PC410	PS9701	5 Pin SOP	(Our Height is Lower at 2.3mm)	A	
PC417	PS8701	5 Pin DIP	(Our Height is Lower at 2.3mm)	A	
PC419	No Cross			D	
PC450T	No Cross			D	
PC452	PS2732-1	4 Pin SOP	(Our Height is Lower at 2.3mm)	B	
PC702V	PS2601	6 Pin DIP	PS2501-1/PS2561 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC703V	PS2601	6 Pin DIP	PS2501-1/PS2561 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC713V	PS2601	6 Pin DIP	PS2501-1/PS2561 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC714V	PS2602	6 Pin DIP	PS2501-1/PS2561 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC715V	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC716V	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC723V	PS2601	6 Pin DIP	PS2501-1/PS2561 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC724V	PS2622	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC725	PS2632	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC727	No Cross	6 Pin DIP		D	
PC729	No Cross	6 Pin DIP		D	
PC733	PS2605	6 Pin DIP	PS2505-1/PS2565-1 Lower Cost 4 Pin	B	7.65 mm vs 10 mm
PC733H	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	7.65 mm vs 10 mm
PC810	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC812	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC813	PS2565-1 (PS2505-1)	4 Pin DIP		A	
PC814	PS2565-1 (PS2505-1)	4 Pin DIP		A	
PC815	PS2502-1 (PS2562-1)	4 Pin DIP	PS2502-1 is Lower Cost	A	
PC816	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC817	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC818	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC824	PS2505-2 (PS2565-2)	8 Pin DIP	PS2505-2 is Lower Cost	A	
PC825	PS2502-2 (PS2562-2)	8 Pin DIP	PS2502-2 is Lower Cost	A	
PC826	PS2501-2 (PS2561-2)	8 Pin DIP	PS2501-2 is Lower Cost	A	
PC827	PS2501-2 (PS2561-2)	8 Pin DIP	PS2501-2 is Lower Cost	A	
PC829		8 Pin DIP	PS2505-2 is Replacing	C	
PC844	PS2505-4 (PS2565-4)	16 Pin DIP	PS2505-4 is Lower Cost	A	
PC845	PS2502-4 (PS2562-4)	16 Pin DIP	PS2502-4 is Lower Cost	A	
PC846	PS2501-4 (PS2561-4)	16 Pin DIP	PS2501-4 is Lower Cost	A	
PC847	PS2501-4 (PS2561-4)	16 Pin DIP	PS2501-4 is Lower Cost	A	

A = Direct Electrical/Mechanical Replacement
B = Direct Electrical Drop-In Replacement Likely Insignificant Difference
C = Same Electrical Function / Not Drop in Electrical/Mechanical Replacement
D = No Cross

Sharp	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
PC851	PS2532-1	4 Pin DIP	300V Vceo Type With Low CTR	C	
PC852	PS2532-1	4 Pin DIP		A	
PC853	PS2532-1	4 Pin DIP		A	
PC853H	PS2533-1	4 Pin DIP		A	
PC8D52	PS2532-2	8 Pin DIP		A	
PC8Q52	PS2532-4	8 Pin DIP		A	
PC865	PS2532-1	4 Pin DIP		A	
PC875	PS2532-1	4 Pin DIP		A	
PC895	PS2532-1	4 Pin DIP		A	
PC866	PS2561-1 (PS2501-1)	4 Pin DIP		A	
PC8D66	PS2501-2 (PS2561-2)	4 Pin DIP	PS2501-2 is Lower Cost	A	
PC8Q66	PS2501-4 (PS2561-4)	16 Pin DIP	PS2501-4 is Lower Cost	A	
PC900V		6 Pin DIP		D	
PC900VQ		6 Pin DIP		D	
PC901V		6 Pin DIP		D	
PC902		8 Pin DIP		D	
PC904		8 Pin DIP		D	
PC905		8 Pin DIP		D	
PC906		16 Pin DIP		D	
PC910X	PS9601	8 Pin DIP		A	
PC91D10		8 Pin DIP		D	
PC911	PS9611	8 Pin DIP		A	
PC912X	PS9611	8 Pin DIP		A	
PC915		8 Pin DIP		D	
PC917X	PS8602	8 Pin DIP		A	
PC918X	PS8602	8 Pin DIP		A	
PC922	PS9634	8 Pin DIP		A	
PC923	PS9636	8 Pin DIP		A	
PC924	PS9636	8 Pin DIP		A	
PC928				D	
PC929				D	
PC930				D	
PC931				D	
PC932				D	
PC933				D	
PC934				D	
PC935				D	
PC9D10				D	
PC9D17				D	
6N135	PS8601	8 Pin DIP		A	
6N136	PS8601	8 Pin DIP		A	
6N137	PS9601	8 Pin DIP		A	
6N138				D	
6N139				D	

Toshiba	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
4N25	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N25A	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N26	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N27	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N28	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N29	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N29A	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N30	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N31	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N32	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	

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C = Same Electrical Function / Not Drop in Electrical/Mechanical Replacement
D = No Cross

Toshiba	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
4N32A	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N33	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N35	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N36	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N37	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N38	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N38A	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
6N135	PS8601	8 Pin DIP		A	
6N136	PS8601	8 Pin DIP		A	
6N137	PS9601	8 Pin DIP		A	
6N138				D	
6N139				D	
CNY17-2	PS2601-M	6 Pin DIP		A	
CNY17-3	PS2601-L	6 Pin DIP		A	
CNY17-4	PS2601-K	6 Pin DIP		A	
TLP112	PS8701	5 Pin SOP		B	
TLP112A	PS8701	5 Pin SOP		B	
TLP113				D	
TLP114A	PS8701	5 Pin SOP		B	
TLP115	PS9701	5 Pin SOP		B	
TLP115A	PS9701	5 Pin SOP		B	
TLP120	PS2705-1	4 Pin SOP		A	
TLP120-4	PS2705-4	16 Pin SOP		A	
TLP121	PS2701-1	4 Pin SOP		A	
TLP121-4	PS2701-4	16 Pin SOP		A	
TLP124	PS2701-1	4 Pin SOP		A	
TLP124-4	PS2701-4	16 Pin SOP		A	
TLP126	PS2705-1	4 Pin SOP		A	
TLP126-4	PS2705-4	16 Pin SOP		A	
TLP127	PS2732-1	4 Pin SOP		A	
TLP127-4	PS2732-4	16 Pin SOP		A	
TLP130	No Cross	4 Pin SOP	PS2705-1 4 Pin Replacement Lower Cost	C	
TLP131	No Cross	4 Pin SOP	PS2701-1 4 Pin Replacement Lower Cost	C	
TLP137	No Cross	4 Pin SOP	PS2701-1 4 Pin Replacement Lower Cost	C	
TLP141G	No Cross	4 Pin SOP		D	
TLP160G	No Cross	4 Pin SOP		D	
TLP160J	No Cross	4 Pin SOP		D	
TLP16GJ	No Cross	4 Pin SOP		D	
TLP161J	No Cross	4 Pin SOP		D	
TLP168G	No Cross	4 Pin SOP		D	
TLP168J	No Cross	4 Pin SOP		D	
TLP181	PS2701-1	4 Pin SOP		A	
TLP190B	No Cross	4 Pin SOP		D	
TLP191B	No Cross	4 Pin SOP		D	
TLP215	No Cross	6 Pin DIP		D	
TLP216	No Cross	6 Pin DIP		D	
TLP227G	No Cross	4 Pin DIP	PS7141-1A 6 Pin Lower Cost Replacement	C	
TLP227G-2	PS7141-2A	8 Pin DIP		B	
TLP250	No Cross	8 Pin DIP		D	
TLP251	No Cross	8 Pin DIP		D	
TLP280	PS2805-1	4 Pin SSOP		A	
TLP280-4	PS2805-4	16 Pin SSOP		A	
TLP296G	PS7141-2A	8 Pin DIP		B	
TLP320	PS2525-1	4 Pin DIP		A	
TLP320-2	PS2525-2	8 Pin DIP		A	
TLP320-4	PS2525-4	16 Pin DIP		A	
TLP321	PS2561-1 (PS2501-1)	4 Pin DIP		A	

A = Direct Electrical/Mechanical Replacement
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Toshiba	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
TLP321-2	PS2501-2 (PS2561-2)	8 Pin DIP	PS2501-2 is Lower Cost than PS2561-2	A	
TLP321-4	PS2501-4 (PS2561-4)	16 Pin DIP	PS2501-4 is Lower Cost than PS2561-2	A	
TLP330	PS2625	6 Pin DIP		A	
TLP331	PS2601	6 Pin DIP		A	
TLP332	PS2602	6 Pin DIP		A	
TLP371	PS2633	6 Pin DIP		A	
TLP372	PS2634	6 Pin DIP		A	
TLP504A	No Cross	8 Pin DIP	Old Telecom Pinout PS2505-2 is closest cross and lower Cost	C	
TLP504-2	No Cross	16 Pin DIP	Old Telecom Pinout PS2505-4 is closest cross and lower Cost	C	
TLP512	No Cross	8 Pin DIP	PS8602 is the closest cross same function	C	
TLP513	No Cross	8 Pin DIP	PS9601 is the closest cross same function	C	
TLP521-1	PS2561-1 (PS2501-1)	4 Pin DIP		A	
TLP521-2	PS2501-2	8 Pin DIP		A	
TLP521-4	PS2501-4	16 Pin DIP		A	
TLP523	PS2532-1	4 Pin DIP		A	
TLP523-2	PS2532-2	8 Pin DIP		A	
TLP523-4	PS2532-4	16 Pin DIP		A	
TLP525G	No Cross	4 Pin DIP		D	
TLP525G-2	No Cross	8 Pin DIP		D	
TLP525G-4	No Cross	16 Pin DIP		D	
TLP531	PS2601	6 Pin DIP		A	
TLP532	PS2602	6 Pin DIP		A	
TLP535	PS2601	6 Pin DIP		A	
TLP541G	No Cross	6 Pin DIP		D	
TLP542G	No Cross	6 Pin DIP		D	
TLP550	PS8602	8 Pin DIP		A	
TLP552	PS9601	8 Pin DIP		A	
TLP553	No Cross			D	
TLP555	No Cross			D	
TLP557	No Cross	8 Pin DIP	PS9634 is closest cross same function	C	
TLP558	No Cross	8 Pin DIP	PS9601 is closest cross same function	C	
TLP559	PS8601	8 Pin DIP		B	
TLP560G	No Cross	6 Pin DIP		D	
TLP560J	No Cross	6 Pin DIP		D	
TLP561G	No Cross	6 Pin DIP		D	
TLP561J	No Cross	6 Pin DIP		D	
TLP570	PS2604	6 Pin DIP		B	
TLP571	PS2603	6 Pin DIP		B	
TLP572	PS2634	6 Pin DIP		A	
TLP582	No Cross			D	
TLP590B	No Cross	6 Pin DIP		D	
TLP591B	No Cross	6 Pin DIP		D	
TLP620	PS2565-1 (PS2501)	4 Pin DIP		A	
TLP620-2	PS2565-2 (PS2505-2)	4 Pin DIP		A	
TLP620-4	PS2565-4 (PS2505-4)	4 Pin DIP		A	
TLP621	PS2561-1 (PS2501-1)	4 Pin DIP		A	
TLP621-2	PS2561-2 (PS2501-2)	8 Pin DIP		A	
TLP621-4	PS2561-4 (PS2501-4)	16 Pin DIP		A	
TLP624	PS2503-1	4 Pin DIP		B	
TLP624-2	PS2503-2	8 Pin DIP		B	
TLP624-4	PS2503-4	16 Pin DIP		B	
TLP626	PS2565-1	4 Pin DIP		A	
TLP626-2	PS2565-2	8 Pin DIP		A	
TLP626-4	PS2565-4	16 Pin DIP		A	
TLP627	PS2532-1	4 Pin DIP		A	
TLP627-2	PS2532-2	8 Pin DIP		A	
TLP627-4	PS2532-4	16 Pin DIP		A	

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Toshiba	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
TLP628	PS2533-1	4 Pin DIP		C	
TLP628-2	PS2533-2	8 Pin DIP		C	
TLP628-4	PS2533-4	16 Pin DIP		C	
TLP629	PS2521-1	4 Pin DIP		A	
TLP629-2	PS2521-2	8 Pin DIP		A	
TLP629-4	PS2521-4	16 Pin DIP		A	
TLP630	PS2605	6 Pin DIP		A	
TLP631	PS2601	6 Pin DIP		A	
TLP632	PS2602	6 Pin DIP		A	
TLP633	PS2601	6 Pin DIP		A	
TLP634	PS2602	6 Pin DIP		A	
TLP641G	No Cross			D	
TLP647G	No Cross			D	
TLP647J	No Cross			D	
TLP651	PS8601	8 Pin DIP		A	
TLP665G	No Cross			D	
TLP665GF	No Cross			D	
TLP665J	No Cross			D	
TLP665JF	No Cross			D	
TLP666G	No Cross			D	
TLP666GF	No Cross			D	
TLP666J	No Cross			D	
TLP666JF	No Cross			D	
TLP668	No Cross			D	
TLP721	PS2565-1	4 Pin DIP		A	
TLP721F	PS2561L1-1	4 Pin DIP	Special Lead Bend	A	
TLP731	PS2651	6 Pin DIP		B	
TLP731(LF2)	PS2651	6 Pin DIP		A	
TLP733	PS2651	6 Pin DIP		B	
TLP733F	PS2652	6 Pin DIP		A	
TLP734	PS2651	6 Pin DIP		B	
TLP734F	PS2652	6 Pin DIP		A	
TLP741G	No Cross	6 Pin DIP		D	
TLP741J	No Cross	6 Pin DIP		D	
TLP747G	No Cross	6 Pin DIP		D	
TLP747J	No Cross	6 Pin DIP		D	
TLP750	PS8602	8 Pin DIP		A	
TLP751	PS8601	8 Pin DIP		A	
TLP759	PS8602	8 Pin DIP		B	
TLP762J	No Cross	6 Pin DIP		D	
TLP763J	No Cross	6 Pin DIP		D	
TLP2200	No Cross			D	
TLP2530	No Cross			D	
TLP2531	No Cross			D	
TLP2601	PS9601	8 Pin DIP		C	
TLP2630	No Cross			D	
TLP3502	No Cross			D	
TLP3502A	No Cross			D	
TLP3503	No Cross			D	
TLP3503A	No Cross			D	
TLP3506	No Cross			D	
TLP3507	No Cross			D	
TLP3520	No Cross			D	
TLP3520A	No Cross			D	
TLP3521	No Cross			D	
TLP3526	No Cross			D	
TLP3527	No Cross			D	

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TLP3530	No Cross			D	

Note:
LF1 / LF4 / LF5 = Surface Mount Lead Bends Different Types
LF2 = Special 10.16 mm Lead Bend (NEC "L1" option)
TPL / TPR = Tape and Reel Specification
TP1 / TP4 / TP5 = Tape and Reel Specification

Siemens	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
4N32	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	B	
4N33	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	B	
4N39	No Cross			D	
6N135	PS8601	8 Pin DIP		A	
6N136	PS8601	8 Pin DIP		A	
6N138	No Cross			D	
6N139	No Cross			D	
CNY17F	PS2602	6 Pin DIP	PS2501-1/PS2561-1 4 Pin Replacement Lower Cost	A	
H11AA1	PS2625	6 Pin DIP	PS2525-1 4 Pin Replacement Lower Cost	A	
H11B1	PS2603-L	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	A	
H11B2	PS2603-M	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	A	
H11B3	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	A	
IL1	PS2601	6 Pin DIP	PS2501-1/PS2561-1 4 Pin Replacement Lower Cost	A	
IL30	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	A	
IL31	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	B	Check Power Rating
IL55	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	B	Check Power Rating
ILD30	No Cross	8 Pin DIP		D	
ILD31	No Cross	8 Pin DIP		D	
ILD55	No Cross	8 Pin DIP		D	
ILQ30	No Cross	16 Pin DIP		D	
ILQ31	No Cross	16 Pin DIP		D	
ILQ55	No Cross	16 Pin DIP		D	
IL55B	PS2604	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Replacement Lower Cost	B	
IL66	PS2633	6 Pin DIP	PS2532-1 4 Pin Replacement Lower Cost	B	
ILD66	See Comment	8 Pin DIP	PS2502-2 8 Pin Electrical Function can be used for this App.	D	
ILQ66	See Comment	16 Pin DIP	PS2502-4 8 Pin Electrical Function can be used for this App.	D	
IL66B	PS2634	6 Pin DIP	PS502-1/PS2562-1 4 Pin Replacement Lower Cost	B	
IL74	PS2601	6 Pin DIP	PS2501-1/PS2561-1 4 Pin Replacement Lower Cost	B	
ILD74	See Comment	8 Pin DIP	PS2501-2 Electrical Function can be used for this App.	D	
ILQ74	See Comment	16 Pin DIP	PS2501-4 Electrical Function Can be used for this App.	D	
IL201	PS2601-D	6 Pin DIP	PS2561-1-H 4 Pin Electrical Replacement Lower Cost	B	
IL202	PS2601-K	6 Pin DIP	PS2561-1-L 4 Pin Electrical Replacement Lower Cost	B	
IL203	PS2601-K	6 Pin DIP	PS2561-1-L 4 Pin Electrical Replacement Lower Cost	B	
IL205A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL206A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL207A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL208	See Comment	8 Pin SSOP	PS2801-14 Pin Electrical Replacement Lower Cost	D	
IL211A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
L212A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL213A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL215A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL216A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL217A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL221A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IIL222A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL223A	See Comment	8 Pin SSOP	PS2801-1 4 Pin Electrical Replacement Lower Cost	D	
IL250	PS2605	6 Pin DIP		B	

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IL251	PS2605	6 Pin DIP		B	
IL252	PS2605	6 Pin DIP		B	
ILD250	PS2505-2	8 Pin DIP		B	
ILD251	PS2505-2	8 Pin DIP		B	
ILD252	PS2505-2	8 Pin DIP		B	
IL255	PS2605	6 Pin DIP		B	
IL256	See Comment	8 Pin 1/2 SOP	PS2805-1 4 Pin Electrical Replacement Lower Cost	D	
IL300	No Cross			D	
IL329	See Comment	8 Pin SOP	PS7241-AT5 is Lower Cost Standard Industry Pinout	D	
IL350	No Cross			D	
IL352	No Cross			D	
IL388	No Cross			D	
IL410	No Cross			D	
IL420	No Cross			D	
IL440	No Cross			D	
IL755	PS2603	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Electrical Replacement Lower Cost	B	
IL755-2	No Cross	8 Pin DIP	PS2502-2 Lower Cost Electrical Function	D	
IL755B	PS2604	6 Pin DIP	PS2502-1/PS2562-1 4 Pin Electrical Replacement Lower Cost	B	
IL766	PS2633	6 Pin DIP	PS2532-1 4 Pin Electrical Replacement Lower Cost	D	
IL766-2	No Cross	8 Pin DIP		D	
ILD766	No Cross	8 Pin DIP		D	
IL766B	PS2634	6 Pin DIP	PS2532-1 4 Pin Electrical Replacement Lower Cost	D	
IL4108	No Cross	6 Pin DIP		D	
IL4116	No Cross	6 Pin DIP		D	
IL4117	No Cross	6 Pin DIP		D	
IL4118	No Cross	6 Pin DIP		D	
IL4216	No Cross	6 Pin DIP	Non Promotive/No New Designs	A	
IL4217	No Cross	6 Pin DIP		D	
IL4218	No Cross	6 Pin DIP		D	
ILCT6	No Cross	8 Pin DIP	PS2501-2 Lower Cost Same Electrical Function	D	
ILD1	No Cross	8 Pin DIP	PS2501-2 Lower Cost Same Electrical Function	D	
ILD2	No Cross	8 Pin DIP	PS2501-2 Lower Cost Same Electrical Function	D	
ILD5	No Cross	8 Pin DIP	PS2501-2 Lower Cost Same Electrical Function	D	
ILQ1	No Cross	16 Pin DIP	PS2501-4 Lower Cost Same Electrical Function	D	
ILQ2	No Cross	16 Pin DIP	PS2501-4 Lower Cost Same Electrical Function	D	
ILQ5	No Cross	16 Pin DIP	PS2501-4 Lower Cost Same Electrical Function	D	
ILD3	No Cross	8 Pin DIP	PS2501-2 Lower Cost Same Electrical Function	D	
ILQ3	No Cross	16 Pin DIP	PS2501-4 Lower Cost Same Electrical Function	D	
ILD32	No Cross	8 Pin DIP	PS2502-2 Lower Cost Same Electrical Function	D	
ILQ32	No Cross	16 Pin DIP	PS2502-5 Lower Cost Same Electrical Function	D	
ILD205	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD206	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD207	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD211	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD213	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD217	PS2801-1 x 2	8 Pin SSOP	Please call for CTR Rank Information	C	
ILD223	PS2802-1 x 2	8 Pin SSOP		A	
ILD255	No Cross	8 Pin SSOP	PS2805-2 Lower Cost Same Electrical Function	A	
ILD256	PS2805-1 x 2	8 Pin SSOP		A	
ILD610	PS2501-2	8 Pin DIP		B	
ILD610-1	PS2501-2-H	8 Pin DIP		B	
ILD610-2	PS2501-2-H	8 Pin DIP		B	
ILD610-3	PS2501-2-D	8 Pin DIP		B	
ILD610-4	PS2501-2-M	8 Pin DIP		B	
ILD615	PS2501-2	8 Pin DIP		B	
ILD615-1	PS2501-2-H	8 Pin DIP		B	
ILD615-2	PS2501-2-H	8 Pin DIP		B	

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ILD615-3	PS2501-2-D	8 Pin DIP		B	
ILD615-4	PS2501-2-L	8 Pin DIP		B	
ILQ615	PS2501-4	16 Pin DIP		B	
ILQ615	PS2501-4-H	16 Pin DIP		B	
ILQ615	PS2501-4-H	16 Pin DIP		B	
ILQ615	PS2501-4-D	16 Pin DIP		B	
ILQ615	PS2501-4-M	16 Pin DIP		B	
ILD620	PS2501-2	8 Pin DIP		A	
ILD620GB	PS2501-2-L	8 Pin DIP		A	
ILQ620	PS2501-4	16 Pin DIP		A	
ILQ620GB	PS2501-4-L	16 Pin DIP		A	
ILD621	PS2505-2	8 Pin DIP		A	
ILD621GB	PS2505-2	8 Pin DIP		B	
ILQ621	PS2505-4	16 Pin DIP		A	
ILQ621GB	PS2505-4	16 Pin DIP		B	
ILH100	No Cross			D	
ILH200	No Cross			D	
MCA230	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MCA231	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MCA255	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MCT6	No Cross	8 Pin DIP	PS2501-2 Lower Cost 4 Pin Replacement	D	
MCT5210	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
MCT5211	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
MOC8050	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8111	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH600	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH601	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH601-1	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH601-2	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH601-3	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH601-3	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH608	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH608-2	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH608-3	PS2601-L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH608-4	PS2601-K	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH608-5	PS2601-K	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
SFH610A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH610A-1	PS2501-1 (PS2561-1)	4 Pin DIP	Siemen's CTR = 40-80 %	B	
SFH610A-2	PS2501-1 (PS2561-1)	4 Pin DIP	Siemen's CTR = 63-125 %	B	
SFH610A-3	PS2501-1 (PS2561-1)	4 Pin DIP	Siemen's CTR = 100-200 %	B	
SFH610A-4	PS2501-1 (PS2561-1)	4 Pin DIP	Siemen's CTR = 160-320 %	B	
SFH611A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH615A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH617A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH618A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH620A	PS2505-1 (PS2565-1)	4 Pin DIP		B	
SFH620AA	PS2505-1 (PS2565-1)	4 Pin DIP		B	
SFH628A	PS2501-1 (PS2561-1)	4 Pin DIP		A	
SFH636	PS8701-1	5 Pin SOP	SOP Version of the SFH636	C	
SFH640	No Cross	6 Pin DIP	300 V Vceo	C	
SFH640-1	No Cross	6 Pin DIP	300 V Vceo	C	
SFH640-2	No Cross	6 Pin DIP	300 V Vceo	C	
SFH640-3	No Cross	6 Pin DIP	300 V Vceo	C	
SFH6135	PS8601	6 Pin DIP		A	
SFH6136	PS8601	6 Pin DIP		A	
SFH6138	No Cross	8 Pin DIP		D	
SFH6139	No Cross	8 Pin DIP		D	

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SFH6315	No Cross	8 Pin SSOP		D	
SFH6316	No Cross	8 Pin SSOP		D	
SFH6318	No Cross	8 Pin SSOP		D	
SFH6319	No Cross	8 Pin SSOP		D	
SFH6325	No Cross	8 Pin SSOP		D	
SFH6326	No Cross	8 Pin SSOP		D	
SFH6343	No Cross	8 Pin SSOP		D	
SFH6345	No Cross	8 Pin DIP		D	
SFH6700	No Cross	8 Pin DIP		D	
SFH6701	No Cross	8 Pin DIP		D	
SFH6702	No Cross	8 Pin DIP		D	
SFH6705	No Cross	8 Pin DIP		D	
SFH6711	No Cross	8 Pin DIP		D	
SFH6712	No Cross	8 Pin DIP		D	
SFH6719	No Cross	8 Pin DIP		D	
SFH6943	No Cross	8 Pin DIP		D	

QTC	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
4N25	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N26	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N27	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N28	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N29	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N30	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N31	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N32	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N33	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N35	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N36	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N37	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N39	No Cross			D	
4N40	No Cross			D	
HCPL2503	PS8601	8 Pin DIP		A	
HCPL4502	PS8601	8 Pin DIP		B	
6N135	PS8601	8 Pin DIP		A	
6N136	PS8601	8 Pin DIP		B	
6N137	PS9601	8 Pin DIP		A	
HCPL2601	PS9701	5 Pin SOP		A	
HCPL2611	PS9601	8 Pin DIP		B	
6N138	No Cross	8 Pin DIP		D	
6N139	No Cross	8 Pin DIP		D	
74OL6000	No Cross	6 Pin DIP		D	
74OL6001	No Cross	6 Pin DIP		D	
74OL6010	No Cross	6 Pin DIP		D	
74OL6011	No Cross	6 Pin DIP		D	
CNY17-1	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-2	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-3	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-4	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17F-1	PS2602-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17F-2	PS2602-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17F-3	PS2602-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11A1	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11AA1	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA2	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA3	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA4	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	

A = Direct Electrical/Mechanical Replacement
B = Direct Electrical Drop-In Replacement Likely Insignificant Difference
C = Same Electrical Function / Not Drop in Electrical/Mechanical Replacement
D = No Cross

QTC	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
H11D1	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11D2	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11D3	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11G1	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	A	
H11G2	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	A	
HCPL2530	No Cross	8 Pin DIP		D	
HCPL2531	No Cross	8 Pin DIP		D	
HCPL2630	No Cross	8 Pin DIP		D	
HCPL2631	No Cross	8 Pin DIP		D	
HCPL2730	No Cross	8 Pin DIP		D	
HCPL2731	No Cross	8 Pin DIP		D	
MCP3009	No Cross	6 Pin DIP		D	
MCP3010	No Cross	6 Pin DIP		D	
MCP3011	No Cross	6 Pin DIP		D	
MCP3020	No Cross	6 Pin DIP		D	
MCP3021	No Cross	6 Pin DIP		D	
MCP3022	No Cross	6 Pin DIP		D	
MCT2	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT2E	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT210	PS2601-L	6 Pin DIP	PS2561-1-L/PS2501-1-L Lower Cost 4 Pin Replacement	A	
MCT-2200	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT-2201	PS2601-L	6 Pin DIP	PS2561-1-L/PS2501-1-L Lower Cost 4 Pin Replacement	A	
MCT-2202	PS2601-M	6 Pin DIP	PS2561-1-M/PS2501-1-M Lower Cost 4 Pin Replacement	B	
MCT-26	PS2601-M	6 Pin DIP	PS2561-1-M/PS2501-1-M Lower Cost 4 Pin Replacement	B	
MCT270	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
MCT-271	PS2601-M	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
MCT272	PS2601-M	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
MCT274	PS2601-L	6 Pin DIP	PS2561-1-L/PS2501-1-L Lower Cost 4 Pin Replacement	A	
MCT275	PS2601-M	6 Pin DIP	PS2561-1-M/PS2501-1-M Lower Cost 4 Pin Replacement	B	
MCT276	PS2601-M	6 Pin DIP	PS2561-1-M/PS2501-1-M Lower Cost 4 Pin Replacement	B	
MCT277	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT5200	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT5201	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT5210	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT5211	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MCT6	No Cross	8 Pin DIP	PS2501-2 Electrically Functional Equivalent Lower Cost	C	
MCT61	No Cross	8 Pin DIP	PS2501-2 Electrically Functional Equivalent Lower Cost	C	
MCT62	No Cross	8 Pin DIP	PS2501-2 Electrically Functional Equivalent Lower Cost	C	
MCT9001	PS2501-2	8 Pin DIP		A	
MID400	No Cross	8 Pin DIP		D	
MOC8111	PS2602	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MOC8112	PS2602	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
MOC8113	PS2602	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	A	
TIL111	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	
H11A1	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11A2	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11A3	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11A4	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11A5	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11A1Z	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11AG1	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11AG2	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11AG3	PS2601	6 Pin DIP	PS2561-1/PS2501-1 Lower Cost 4 Pin Replacement	B	
H11B1	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
H11B2	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
H11B3	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
H11C1	No Cross			D	

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D = No Cross

QTC	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
H11C2	No Cross			D	
H11C3	No Cross			D	
H11C4	No Cross			D	
H11C5	No Cross			D	
H11C6	No Cross			D	
H11D1	PS2631	6 Pin DIP		B	
H11D2	PS2631	6 Pin DIP		B	
H11D3	PS2631	6 Pin DIP		B	
H11F1	No Cross			D	
H11F2	No Cross			D	
H11F3	No Cross			D	
H11L1	No Cross	6 Pin DIP		D	
H11L2	No Cross	6 Pin DIP		D	
H11L3	No Cross	6 Pin DIP		D	
H11N1	No Cross	6 Pin DIP		D	
H11N2	No Cross	6 Pin DIP		D	
H11N3	No Cross	6 Pin DIP		D	
H24A1	PS2502-1 (PS2562-1)	4 Pin DIP		C	
H24A2	PS2502-1 (PS2562-1)	4 Pin DIP		C	
H24B1	PS2502-1 (PS2562-1)	4 Pin DIP		C	
H24B2	PS2502-1 (PS2562-1)	4 Pin DIP		C	
MCT4	No Cross	LED		D	
MOC3009	No Cross	6 Pin DIP		D	
MOC3010	No Cross	6 Pin DIP		D	
MOC3011	No Cross	6 Pin DIP		D	
MOC3012	No Cross	6 Pin DIP		D	
MOC3020	No Cross	6 Pin DIP		D	
MOC3021	No Cross	6 Pin DIP		D	
MOC3022	No Cross	6 Pin DIP		D	
MOC3023	No Cross	6 Pin DIP		D	

Note:
-S = Surface Mount Option
-SD = Surface Mount Tape and Reel Option
-200D = Surface Mount Tape and Reel Option

Hewlett Packard	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
6N135	PS8601	8 Pin DIP		A	
6N136	PS8601	8 Pin DIP		B	
HCNR200	No Cross	8 Pin DIP		D	
HCNR201	No Cross	8 Pin DIP		D	
HCNW135	PS8601	8 Pin DIP		B	
HCNW136	PS8601	8 Pin DIP		B	
HCNW137	PS9601	8 Pin DIP		B	
HCNW138	No Cross	8 Pin DIP		D	
HCNW139	No Cross	8 Pin DIP		D	
HCNW2201	No Cross	8 Pin DIP		D	
HCNW2211	No Cross	8 Pin DIP		D	
HCNW2601	PS9601	8 Pin DIP		B	
HCNW2611	PS9601	8 Pin DIP		B	
HCNW4502	PS8601	8 Pin DIP		B	
HCNW4503	PS8601	8 Pin DIP		B	
HCNW4504	PS8601	8 Pin DIP		A	
HCNW4506	No Cross	8 Pin DIP		D	
HCNW4562	PS8601	8 Pin DIP		B	

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D = No Cross

Hewlett Packard	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
HCPL-0201	No Cross	8 Pin DIP		D	
HCPL-0211	No Cross	8 Pin DIP		D	
HCPL-0452	PS8601	8 Pin DIP		B	
HCPL-0453	PS8601	8 Pin DIP		B	
HCPL-0454	PS8601	8 Pin DIP		A	
HCPL-0466	No Cross	8 Pin DIP		D	
HCPL-0500	PS8601	8 Pin DIP		B	
HCPL-0501	PS8601	8 Pin DIP		B	
HCPL-0530	No Cross	8 Pin DIP	2 of the PS8701 NEC Lower Cost Smaller	D	
HCPL-0531	No Cross	8 Pin DIP	2 of the PS8701 NEC Lower Cost Smaller	D	
HCPL-0534	No Cross	8 Pin DIP	2 of the PS8701 NEC Lower Cost Smaller	D	
HCPL-0560	No Cross	8 Pin DIP	2 of the PS8701 NEC Lower Cost Smaller	D	
HCPL-0561	No Cross	8 Pin DIP	2 of the PS8701 NEC Lower Cost Smaller	D	
HCPL-0600	PS9601	8 Pin DIP		B	
HCPL-0601	PS9601	8 Pin DIP		B	
HCPL-0611	PS9601	8 Pin DIP		B	
HCPL-061A	PS9601	8 Pin DIP		B	
HCPL-0630	No Cross	8 Pin DIP		D	
HCPL-0631	No Cross	8 Pin DIP		D	
HCPL-063A	No Cross	8 Pin DIP		D	
HCPL-063N	No Cross	8 Pin DIP		D	
HCPL-0661	No Cross	8 Pin DIP		D	
HCPL-0700	No Cross	8 Pin DIP		D	
HCPL-0701	No Cross	8 Pin DIP		D	
HCPL-070A	No Cross	8 Pin DIP		D	
HCPL-0730	No Cross	8 Pin SOIC	PS2732-2 closest cross	D	
HCPL-0731	No Cross	8 Pin SOIC	PS2732-2 closest cross	D	
HCPL-073A	No Cross	8 Pin SOIC		D	
HCPL-0870	No Cross	A/D Converter		D	
HCPL-177K	No Cross	8 Pin DIP		D	
HCPL-1930	No Cross	16 Pin DIP		D	
HCPL-1931	No Cross	16 Pin DIP		D	
HCPL-193K	No Cross	16 Pin DIP		D	
HCPL-2200	No Cross	8 Pin DIP		D	
HCPL-2201	No Cross	8 Pin DIP		D	
HCPL-2202	No Cross	8 Pin DIP		D	
HCPL-2211	No Cross	8 Pin DIP		D	
HCPL-2212	No Cross	8 Pin DIP		D	
HCPL-2219	No Cross	8 Pin DIP		D	
HCPL-2231	No Cross	8 Pin DIP		D	
HCPL-2232	No Cross	8 Pin DIP		D	
HCPL-2300	No Cross	8 Pin SOIC		D	
HCPL-2400	PS9634	8 Pin DIP		B	
HCPL-2430	No Cross	8 Pin DIP		D	
HCPL-2502	PS8601	8 Pin DIP		B	
HCPL-2530	No Cross			D	
HCPL-2531	No Cross			D	
HCPL-257K	PS8601	8 Pin DIP	Hermetically Sealed HP Package	B	
HCPL-2601	No Cross	8 Pin DIP		D	
HCPL-2602	No Cross			D	
HCPL-2611	No Cross			D	
HCPL-2612	No Cross			D	
HCPL-261A	No Cross			D	
HCPL-261N	No Cross			D	
HCPL-2630	No Cross			D	
HCPL-2631	No Cross			D	
HCPL-263A	PS9701	5 Pin SOP		B	

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Hewlett Packard	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
HCPL-263N	PS9701	5 Pin SOP		B	
HCPL-2730	No Cross			D	
HCPL-2731	No Cross			D	
HCPL-3000	No Cross			D	
HCPL-3100	PS9634	8 Pin DIP		B	
HCPL-3101	PS9634	8 Pin DIP		B	
HCPL-3120	No Cross			D	
HCPL-3150	No Cross			D	
HCPL-3160	No Cross			D	
HCPL-3700	No Cross			D	
HCPL-3760	No Cross			D	
HCPL-4100	No Cross			D	
HCPL-4200	No Cross			D	
HCPL-4502	PS8602	8 Pin DIP		B	
HCPL-4503	PS8602	8 Pin DIP		B	
HCPL-4504	PS8602	8 Pin DIP		B	
HCPL-4506	No Cross			D	
HCPL-4534	No Cross		PS8701 Same Electrical Function One Channel	C	
HCPL-4562	PS8602	8 Pin DIP		C	
HCPL-4661	No Cross			D	
HCPL-4701	No Cross			D	
HCPL-4731	No Cross			D	
HCPL-5200	No Cross			D	
HCPL-5201	No Cross			D	
HCPL-520K	No Cross			D	
HCPL-5230	No Cross			D	
HCPL-5231	No Cross			D	
HCPL-523K	No Cross			D	
HCPL-5300	No Cross			D	
HCPL-5301	No Cross			D	
HCPL-530K	No Cross			D	
HCPL-5400	No Cross			D	
HCPL-5401	No Cross			D	
HCPL-540K	No Cross			D	
HCPL-5430	No Cross			D	
HCPL-5431	No Cross			D	
HCPL-543K	No Cross			D	
HCPL-5500	No Cross			D	
HCPL-5501	No Cross			D	
HCPL-550K	No Cross			D	
HCPL-5530	No Cross			D	
HCPL-553K	No Cross			D	
HCPL-5600	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-5601	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-560K	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-5630	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-5631	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-563K	PS9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-5700	No Cross			D	
HCPL-5701	No Cross			D	
HCPL-570K	No Cross			D	
HCPL-5730	No Cross			D	
HCPL-5731	No Cross			D	
HCPL-573K	No Cross			D	
HCPL-5760	No Cross			D	
HCPL-5761	No Cross			D	
HCPL-576K	No Cross			D	

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D = No Cross

Hewlett Packard	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
HCPL-6230	No Cross			D	
HCPL-6231	No Cross			D	
HCPL-623K	No Cross			D	
HCPL-6250	No Cross			D	
HCPL-6251	No Cross			D	
HCPL-625K	No Cross			D	
HCPL-6430	No Cross			D	
HCPL-6431	No Cross			D	
HCPL-643K	No Cross			D	
HCPL-6530	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6531	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-653K	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6550	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6551	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-655K	PC8601	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6630	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6631	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-663K	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6650	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6651	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-665K	PC9601/PS9611	8 Pin DIP	HP is Hermetically Sealed	B	
HCPL-6730	No Cross	8 Pin DIP		D	
HCPL-6731	No Cross	8 Pin DIP		D	
HCPL-673K	No Cross	8 Pin DIP		D	
HCPL-6750	No Cross	8 Pin DIP		D	
HCPL-6751	No Cross	8 Pin DIP		D	
HCPL-675K	No Cross	8 Pin DIP		D	
HCPL-7100	No Cross	8 Pin DIP		D	
HCPL-7101	No Cross	8 Pin DIP		D	
HCPL-7800	No Cross	8 Pin DIP		D	
HCPL-7800A	No Cross	8 Pin DIP		D	
HCPL-7800B	No Cross	8 Pin DIP		D	
HCPL-7820	No Cross	8 Pin DIP		D	
HCPL-7825	No Cross	8 Pin DIP		D	
HCPL-7840	No Cross	8 Pin DIP		D	
HCPL-7860	No Cross	8 Pin DIP		D	
HCPL-7870	No Cross	8 Pin DIP		D	

Note:
-300 = Gull Wing
-500 = Tape and Reel
- HP may be hermetically sealed

Lite-On	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LRV-4N26S	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N25	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N25SA	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N25M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N26	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N26S	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N26M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N27	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N26M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N28	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N28S	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N28M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	

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Lite-On	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LTV-4N32	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N32S	PS2603L	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N32M	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N33	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N33S	PS2603L	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N33M	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
LTV-4N35	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N35S	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N35M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N37	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N37S	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-4N37M	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702V	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702VS	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702VM	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702F	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702FS	PS2602L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-702FM	PS2602L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703V	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703VS	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703VM	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703F	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703FS	PS2602L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-703FM	PS2602L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713V	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713VS	PS2601L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713VM	PS2601L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713F	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713FS	PS2602L	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-713FM	PS2602L1	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
LTV-814	PS2565-1	4 Pin DIP	Special Lead Bend	A	
LTV-814S	PS2565L-1	4 Pin DIP		A	
LTV-814M	PS2565L1-1	4 Pin DIP		A	
LTV-824	PS2505-2	8 Pin DIP		A	
LTV-824S	PS2505L-2	8 Pin DIP		A	
LTV-824M	PS2565L1-2	8 Pin DIP	Special Lead Bend	A	
LTV-844	PS2505-4	16 Pin DIP		A	
LTV-844S	PS2505L-4	16 Pin DIP		A	
LTV-844M	PS2565L1-4	16 Pin DIP	Special Lead Bend	A	
LTV-8141	PS2506-1/PS2566-1	4 Pin DIP		A	
LTV-8141S	PS2506L-1/PS2566L-1	4 Pin DIP		A	
LTV-8141 M	PS2566L1-1	4 Pin DIP	Special Lead Bend	A	
LTV-8241	PS2506-2/PS2566-2	8 Pin DIP		A	
LTV-8241S	PS2506L-2/PS2566L-2	8 Pin DIP		A	
LTV-8241 M	PS2566L1-2	8 Pin DIP	Special Lead Bend	A	
LTV-8441	PS2506-4/PS2566-4	16 Pin DIP		A	
LTV-8441S	PS2506L-4/PS2566L-4	16 Pin DIP		A	
LTV-8441 M	PS2566L1-4	16 Pin DIP	Special Lead Bend	A	
LTV-815	PS2502-1/PS2562-1	4 Pin DIP		A	
LTV-815S	PS2502L-1/PS2562L-1	4 Pin DIP		A	
LTV-815M	PS2561L1-1	4 Pin DIP	Special Lead Bend	A	
LTV-825	PS2502-2/PS2562-2	8 Pin DIP		A	
LTV-825S	PS2502L-2/PS2562L-2	8 Pin DIP		A	
LTV-825M	PS2561L1-2	8 Pin DIP	Special Lead Bend	A	
LTV-845	PS2502-4/PS2562-4	16 Pin DIP		A	
LTV-845S	PS2502L-4/PS2562L-4	16 Pin DIP		A	
LTV-845M	PS2561L1-4	16 Pin DIP	Special Lead Bend	A	
LTV-817	PS2501-1/PS2561-1	4 Pin DIP		A	

A = Direct Electrical/Mechanical Replacement
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D = No Cross

Lite-On	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LTV-817S	PS2501L-1/PS2561L-1	4 Pin DIP		A	
LTV-817M	PS2561L1-1	4 Pin DIP	Special Lead Bend	A	
LTV-827	PS2501-2/PS2561-2	8 Pin DIP		A	
LTV-827S	PS2501L-2/PS2561L-2	8 Pin DIP		A	
LTV-827M	PS2561L1-2	8 Pin DIP	Special Lead Bend	A	
LTV-847	PS2501-4/PS2561-4	16 Pin DIP		A	
LTV-847S	PS2501L-4/PS2561L-4	16 Pin DIP		A	
LTV-847M	PS2561L1-4	16 Pin DIP	Special Lead Bend	A	

Note:
-TA = Tape and Reel
-TB = Tape and Reel

Motorola	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
4N25	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N26	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N27	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N28	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N29	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N30	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N31	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N32	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N33	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
4N35	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N36	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N37	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N38A	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
4N38	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-1	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-2	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
CNY17-3	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11A1	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	
H11AA1	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA2	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA3	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AA4	PS2625	6 Pin DIP	PS2525-1 Lower Cost 4 Pin Replacement	B	
H11AV1	PS2621	6 Pin DIP	PS2521-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11AV2	PS2621	6 Pin DIP	PS2521-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
H11B1	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	A	
H11B3	PS2603-L	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	A	
H11D1	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Type	C	
H11D2	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Type	C	
H11G1	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	A	
H11G2	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	A	
H11G3	PS2633	6 Pin DIP	PS2532-1 Lower Cost 4 Pin Replacement	A	
H11L1	No Cross	6 Pin DIP		D	
H11L2	No Cross	6 Pin DIP		D	
MCT2	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	B	
MCT2E	PS2601	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	B	
MOC119	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost Smaller 4 Pin Replacement	A	
MOC205	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC206	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC207	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC208	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC211	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC212	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC213	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC215	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	

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Motorola	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
MOC216	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC217	PS2801-1	4 Pin SSOP	PS2801-1/PS2561-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC223	PS2802-1	4 Pin SSOP	PS2802-1/PS2562-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC256	PS2805-1	4 Pin SSOP	PS2805-1/PS2565-1 Lower Cost Smaller 4 Pin Replacement	C	
MOC263	PS2802-1	4 Pin SSOP	PS2802-1/PS2562-1 Lower Cost Smaller 4 Pin Replacement	C	
MOCD207	PS2801-1 x 2	8 Pin SSOP	PS2801-1 x 2 Lower Cost 4 Pin Replacement	C	
MOCD208	PS2801-1 x 2	8 Pin SSOP	PS2801-1 x 2 Lower Cost 4 Pin Replacement	C	
MOCD211	PS2801-1 x 2	8 Pin SSOP	PS2801-1 x 2 Lower Cost 4 Pin Replacement	C	
MOCD213	PS2801-1 x 2	8 Pin SSOP	PS2801-1 x 2 Lower Cost 4 Pin Replacement	C	
MOCD217	PS2801-1 x 2	8 Pin SSOP	PS2801-1 x 2 Lower Cost 4 Pin Replacement	C	
MOCD223	PS2802-1 x 2	8 Pin SSOP	PS2802-1 x 2 Lower Cost 4 Pin Replacement	C	
MOC2A40-10	No Cross			D	
MOC2A40-5	No Cross			D	
MOC2A60-10	No Cross			D	
MOC2A60-5	No Cross			D	
MOC2R60-10	No Cross			D	
MOC2R60-15	No Cross			D	
MOC3010	No Cross	6 Pin DIP		D	
MOC3011	No Cross	6 Pin DIP		D	
MOC3012	No Cross	6 Pin DIP		D	
MOC3021	No Cross	6 Pin DIP		D	
MOC3022	No Cross	6 Pin DIP		D	
MOC3023	No Cross	6 Pin DIP		D	
MOC3031	No Cross	6 Pin DIP		D	
MOC3032	No Cross	6 Pin DIP		D	
MOC3033	No Cross	6 Pin DIP		D	
MOC3041	No Cross	6 Pin DIP		D	
MOC3042	No Cross	6 Pin DIP		D	
MOC3043	No Cross	6 Pin DIP		D	
MOC3051	No Cross	6 Pin DIP		D	
MOC3052	No Cross	6 Pin DIP		D	
MOC3061	No Cross	6 Pin DIP		D	
MOC3062	No Cross	6 Pin DIP		D	
MOC3063	No Cross	6 Pin DIP		D	
MOC3081	No Cross	6 Pin DIP		D	
MOC3082	No Cross	6 Pin DIP		D	
MOC3083	No Cross	6 Pin DIP		D	
MOC3162	No Cross	6 Pin DIP		D	
MOC3163	No Cross	6 Pin DIP		D	
MOC5007	No Cross	6 Pin DIP		D	
MOC5008	No Cross	6 Pin DIP		D	
MOC5009	No Cross	6 Pin DIP		D	
MOC8020	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8021	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8030	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8050	PS2604	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8080	PS2603	6 Pin DIP	PS2502-1/PS2562-1 Lower Cost 4 Pin Replacement	B	
MOC8100	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	
MOC8101	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8102	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8103	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8104	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8105	PS2601-M	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8111	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8112	PS2602	6 Pin DIP	PS2501-1/PS2561-1 Lower Cost 4 Pin Replacement	B	
MOC8113	PS2602	6 Pin DIP	PS2501-1 Lower Cost 4 Pin Replacement	B	
MOC8204	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	
MOC8205	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	
MOC8206	PS2621	6 Pin DIP	PS2521-1 Lower Cost 4 Pin Replacement	B	

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TAPE AND REEL AVAILABILITY BY SERIES

OPTOCOUPLERS

PART NUMBER	PACKAGE QUANTITY	PART NUMBER	PACKAGE QUANTITY

PS25XX SERIES	
PS25XXL-1-E3	1000
PS25XXL-1-E4	1000
PS25XXL-1-F3	2000
PS25XXL-1-F4	2000
PS25XXL-2-E3	1000
PS25XXL-2-E4	1000
PS256XL2-1-E3	1000
PS256XL2-1-E4	1000
PS258XL2-E3	1000
PS258XL2-E4	1000

PS26XX SERIES	
PS26XXL-E3	1000
PS26XXL-E4	1000
PS265XL2-E3	1000
PS265XL2-E4	1000

PS27XX SERIES	
PS27XX-1-E3	900
PS27XX-1-E4	900
PS27XX-1-F3	3500
PS27XX-1-F4	3500

PS28XX SERIES	
PS280X-1-F3	3500
PS280X-1-F4	3500
PS280X-4-F3	2500
PS280X-4-F4	2500

PS8XXX SERIES	
PS86XXL-E3	1000
PS86XXL-E4	1000
PS87XX-E3	900
PS87XX-E4	900
PS87XX-F3	3500
PS87XX-F4	3500

PS9XXX SERIES	
PS96XXL-E3	1000
PS96XXL-E4	1000
PS97XX-E3	900
PS97XX-E4	900
PS97XX-F3	3500
PS97XX-F4	3500

INTERNATIONAL SAFETY STANDARDS

NEC OPTOCOUPLER PARTS NUMBER				PS2501 PS2502 PS2503 PS2505 PS2506	PS2521 PS2525	PS2532 PS2533	PS2561 PS2562 PS2565 PS2566	PS2581	PS2601 TO PS2608 PS2621 PS2622 PS2625 PS2626	PS2633 PS2634	PS2651 PS2652 PS2653 PS2654	PS2701 TO PS2707 PS2732 PS2733 PS2741	PS2801 PS2805 (Only 4 CH)
PARAMETER (Units: mm) (Minimum Dist.)		Outer Creepage Distance		7.0	7.0	7.0	7.0	8.0	7.0	7.0	8.0	5.0	5.0
		Clearance Distance		7.5	7.5	7.5	7.5 or 10	8.0	7.5	7.5	8.0 or10.0	5.0	5.0
		Isolation Distance		0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.3	0.3
		Inner Creepage Distance		3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.5	2.5
		Breakdown Voltage		5kV	5kV	5kV	5kV	5kV	5kV	5kV	5kV	2.5kV	2.5kV
Organization	**Country**	**Standard No.**	**NEC Approval No.**										
UL	USA	UL1577	E72422(S)	●	●	●	●	●	●	●	●	●	●
CSA	Canada	CSA-C22.2	CA101391		●	●	●	●		●	●	●	●
VDE	Germany	VDE0884				● 70934	● 68381	● 101306		● 76839	● 70908	● 5903UG	● 101378
BSI	UK	BS415 EN-60-950/EC60950	7112 (4 pin) 7250 (6 pin)	—		●	● 7112	●	—		● 7250	●	● 8188
		BS7002 EN-60-950/EC60950	7240 (4 pin) 7615 (6 pin)	—		●	● 7240	●	—		● 7615	●	● 8189
SEMKO	Sweden	SS-441-01-65	9317144	—		—	●	●	—		●	—	—
		SS-EN-60-950	9317144	—		—	●	●	—		●	—	—
SETI	Finland	E 65-89	167266-08	—		—	●	●	—		●	—	—
		SFS-EN-60-950	167265-08	—		—	●	●	—		●	—	—
NEMKO	Norway	NEK-HD 195 S6	A21409	—		—	●	●	—		●	—	—
		NEK-EN-60-950	A21409	—		—	●	●	—		●	—	—
DEMKO	Denmark	Section 101	300535	—		—	●	●	—		●	—	—
		Section 137	300535	—		—	●	●	—		●	—	—

● Approved ⦿ Under Application ○ Under Planning — N/A

NEC OPTOCOUPLER PARTS NUMBER				PS8601 PS8602	PS8701	PS9601	PS9634	PS9701
PARAMETER (Units: mm) (Minimum Dist.)		Outer Creepage Distance		7.0	5.0	7.0	7.0	5.0
		Clearance Distance		7.5	5.0	7.5	7.5	5.0
		Isolation Distance		0.3	0.2	0.4	0.4	0.2
		Inner Creepage Distance		4.0	2.5	4.0	4.0	2.5
		Breakdown Voltage		5kV	2.5kV	5kV	5kV	2.5kV
Organization	**Country**	**Standard No.**	**NEC Approval No.**					
UL	USA	UL1577	E72422(S)	●	●	●	●	●
CSA	Canada	CSA-C22.2	CA101391		—	—	—	—
VDE	Germany	VDE0884		● 91877	● 5939UG		● 76840	● 5903UG
BSI	UK	BS415 EN-60-950	7112 (4 pin) 7250 (6 pin)	—	—	—	—	—
		BS7002 EN-60-950	7240 (4 pin) 7615 (6 pin)	● 8004	—	● 8389	—	● 8387
SEMKO	Sweden	SS-441-01-65	9317144	—	—	—	—	—
		SS-EN-60-950	9317144	—	—	—	—	—
SETI	Finland	E 65-89	167266-08	—	—	—	—	—
		SFS-EN 60-950	167265-08	—	—	—	—	—
NEMKO	Norway	NEK-HD 195 S6	A21409	—	—	—	—	—
		NEK-EN-60-950	A21409	—	—	—	—	—
DEMKO	Denmark	Section 101	300535	—	—	—	—	—
		Section 137	300535	—	—	—	—	—

● Approved ⦿ Under Application ○ Under Planning — N/A

Solid State Relay Cross Reference

Aromat	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
AQV101	PS710A-1A	6 Pin DIP	In Development	D	
AQV102	PS710A-1A	6 Pin DIP	In Development	B	
AQV103	PS7122A-1A	6 Pin DIP	In Development	B	
AQV104	PS7142-1A	6 Pin DIP		B	
AQV201	PS710A-1A	6 Pin DIP	In Development	B	
AQV202	PS710A-1A	6 Pin DIP	In Development	B	
AQV203	PS7142-1A	6 Pin DIP		B	
AQV204	PS7142-1A	6 Pin DIP		B	
AQV210	PS7141-1A	6 Pin DIP		B	
AQV210E	PS7141-1A	6 Pin DIP		B	
AQV210EH	PS7341-1A	6 Pin DIP		B	
AQV210S	PS7241-1A	6 Pin SOP	4 Pin SOP In Development	C	
AQV212	PS710A-1A	6 Pin DIP	In Development	B	
AQV212	PS7113-1A	6 Pin DIP		B	
AQV212S	No Cross	6 Pin SOP		D	
AQV214	PS7141-1A	6 Pin DIP		B	
AQV214E	PS7141-1A	6 Pin DIP		B	
AQV214EH	PS7341-1A	6 Pin DIP		B	
AQV214H	PS7341-1A	6 Pin DIP		B	
AQV214S	No Cross	6 Pin SOP	4 Pin SOP In Development	D	
AQV215	PS7113-1A	6 Pin DIP		B	
AQV215S	No Cross	6 Pin SOP	4 Pin SOP In Development	D	
AQV216	PS7160-1A	6 Pin DIP		B	
AQV216S	No Cross	6 Pin SOP	4 Pin SOP In Development	D	
AQV217	PS7122-1A	6 Pin DIP		B	
AQV217S	No Cross	6 Pin SOP	4 Pin SOP In Development	D	
AQV22X	No Cross			D	
AQV221	PS7200A-1A	6 Pin DIP	NEC is 4 Pin SOP	C	
AQV224	No Cross	6 Pin DIP		D	
AQV224N	No Cross	6 Pin DIP		D	
AQV224NS	No Cross	6 Pin SOP	NEC is 4 Pin SOP	D	
AQV225	No Cross	6 Pin DIP		D	
AQV225N	No Cross	6 Pin DIP		D	
AQV225NS	No Cross	6 Pin SOP		D	
AQV227N	No Cross	6 Pin DIP		D	
AQV227NS	No Cross	6 Pin DIP		D	
AQV23X	No Cross			D	
AQV234	PS7141-1A	6 Pin DIP		B	
AQV251	PS710A-1A	6 Pin DIP	In Development	B	
AQV252	PS710A-1A	6 Pin DIP	In Development	B	
AQV253	PS7142-1A	6 Pin DIP		B	
AQV253H	PS7342-1A	6 Pin DIP		B	
AQV254	PS7142-1A	6 Pin DIP		B	
AQV254H	PS7342-1A	6 Pin DIP		B	
AQV254R	PS7142-1A	6 Pin DIP	AQV245R has a LED Display	B	
AQV255	PS7113-1A	6 Pin DIP		B	
AQV257	PS7122-1A	6 Pin DIP		B	
AQV257M	PS7522-1A	6 Pin DIP		B	
AQV258	PS71A0-1A	6 Pin DIP	In Development	B	
AQV259	PS71A0-1A	6 Pin DIP	In Development	B	
AQV414	PS7141-1B	6 Pin DIP		B	
AQV414E	PS7141-1B	6 Pin DIP		B	
AQV414EH	PS7341-1B	6 Pin DIP		B	
AQV452	PS7122A-1B	6 Pin DIP		B	
AQV454	PS7141-1B	6 Pin DIP		B	

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Aromat	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
AQV454H	PS7341-1B	6 Pin DIP		B	
AQW210	PS7141-2A	8 Pin DIP		B	
AQW210S	PS7241-2A	8 Pin SOP		B	
AQW210TS	PS7241-AT5	8 Pin SOP		B	
AQW210T2S	No Cross	16 Pin SSOP		D	
AQW212	PS7113-2A	8 Pin DIP		B	
AQW214	PS7141-2A	8 Pin DIP		B	
AQW214S	PS7241-2A	8 Pin SOP	In Development	A	
AQW215	PS7113-2A	8 Pin DIP		B	
AQW216	PS7160-2A	8 Pin DIP		B	
AQW217	PS7122-2A	8 Pin DIP		B	
AQW254	PS7142-2A	8 Pin DIP		B	
AQW414	PS7141-2B	8 Pin DIP		B	
AQW454	PS7141-2B	8 Pin DIP	NEC is Higher Ron	B	
AQW614	PS7141-1C	8 Pin DIP		B	
AQW654	PS7141-1C	8 Pin DIP	NEC is Higher Ron	B	
AQX21444	No Cross			D	
AQY210S	PS7241-1A	4 Pin SOP		B	
AQY214S	PS7241-1A	4 Pin SOP		B	
AQY272	No Cross	Non Standard		D	
AQY274	No Cross	Non Standard		D	
AQY275	No Cross	Non Standard		D	
AQY277	No Cross	Non Standard		D	
AQY414S	PS7241-1B	4 Pin SOP		B	
AQZXXX	No Cross			D	

Note:
All relays are available in Surface Mount.
DIP Package = PS7141-1A
Gull Wing (Surface Mount) = PS7141L-1A
“L” Denotes Surface Mount

CP Clare	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
CPC1035	PS7241-1A	4 Pin SOP		A	
CPCL135	PS7241-1A	4 Pin SOP		A	
CPCL135N	PS7241-1A	4 Pin SOP		A	
IAA170P	No Cross	16 Pin SOIC		D	
IAB170P	No Cross	16 Pin SOIC		D	
IAD170P	No Cross	16 Pin SOIC		D	
IBB170P	No Cross	16 Pin SOIC		D	
ITC112	No Cross	16 Pin DIP	Please use 2 x PS2801 and 1 PS7241-1A Much Lower Cost and Smaller Size	D	
ITC112N	No Cross	16 Pin SSOP	Same as above but same size	D	
ITC117	PS7841-A15	16 Pin DIP	NEC is 16 Pin SSOP	B/C	
ITC117N	PS7841-A15	16 Pin SSOP		A	
ITC135	In Development	16 Pin DIP	NEC is 16 Pin SSOP	B/C	
ITC135N	In Development	16 Pin SSOP	NEC does not have zener diode	C	
LAA110	PS7141-2A	8 Pin DIP		B	
LAA120	PS7122A-2A	8 Pin DIP		B	
LAA125	PS7122-2A	8 Pin DIP		B	
LAA127	PS7122A-2A	8 Pin DIP		B	
LBA110	PS7141-1C	8 Pin DIP		B	
LBA120	PS7141-1C	8 Pin DIP	CP Clare 170 mA vs. NEC 120 mA	B	
LBA127	PS7141-1C	8 Pin DIP	CP Clare 170 mA vs. NEC 120 mA	B	
LBB110	PS7141-2B	8 Pin DIP		A	
LBB120	PS7141-2B	8 Pin DIP	CP Clare 170 mA vs. NEC 120 mA	B	
LBB127	PS7141-2B	8 Pin DIP	CP Clare 170 mA vs. NEC 120 mA	B	
LCA110	PS7141-1A	6 Pin DIP		A	

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CP Clare	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LCA120	PS7142-1A	6 Pin DIP		A	
LCA125	PS7142-1A	6 Pin DIP		A	
LCA710	PS71A0-1A	6 Pin DIP		B	
LCB110	PS7141-1B	6 Pin DIP		A	
LCB120	No Cross	6 Pin DIP		D	
LCC110	No Cross	8 Pin DIP		A	
LCC120	No Cross	8 Pin DIP	CP Clare 170 mA vs. NEC 120 mA	B	
LOC210	PS8741	16 Pin DIP	NEC is 16 Pin SSOP	B/C	
LOC210N	PS8741	16 Pin SSOP		A	
LOC211	PS8741	16 Pin SSOP	NEC is 16 Pin SSOP	B/C	
LOC211N	PS8741	16 Pin SSOP		B	
OAA160	No Cross	8 Pin DIP		D	
OMA130	PS7113-1A	6 Pin DIP		B	
OMA160	No Cross	6 Pin DIP		D	
PLA110	PS7142-1A	6 Pin DIP		A	
PLA140	PS7142-1A	6 Pin DIP		B	
PLA150	PS7142-1A	6 Pin DIP		B	
TS117	PS7241-AT5	8 Pin SOP	PS7241-AT5 = SOP Version	C	
TS117P	PS7241-AT5	8 Pin SOP	PS7241-AT5 = SOP Version	C	
TS118	No Cross	8 Pin DIP		D	
TS118P	No Cross	8 Pin DIP		D	
TS120	PS7241-AT5	8 Pin SOP	PS7241-AT5 = SOP Version	C	
TS120P	PS7241-AT5	8 Pin SOP	Lower Profile DIP Package	C	
TS122	PS7241-AT5	8 Pin SOP	PS7241-AT5 = SOP Version 120 mA	C	
TS122P	PS7241-AT5	8 Pin SOP	Lower Profile DIP Package	C	
TS190	PS7241-AT5	8 Pin SOP	PS7241-AT5 = SOP Version 150 mA	C	
TS190P	PS7241-AT5	8 Pin SOP	Lower Profile DIP Package	C	
XAA170	PS7141-2A	8 Pin DIP		B	
XBA170	PS7141-1C	8 Pin DIP		B	
XBB170	PS7141-2B	8 Pin DIP		B	
XCA110	PS7142-1A	6 Pin DIP		B	
XCA120	PS7122-1A	6 Pin DIP		B	
XCA170	PS7341-1A	6 Pin DIP		A	
XCB170	PS7341-1B	6 Pin DIP		A	
XS170	PS7241-AT5	8 Pin SOP		C	

Note:
TS117P = “P” Identifies Lower Profile DIP Package/NEC Offers Lower Profile Smaller Width SOP Package.

Siemens	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LH1056AAB	PS7141L-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1056AAB1	PS7141L-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1056AT	PS7141-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1056AT1	PS7141-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1056CT	PS7141-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1085AAB	No Cross	6 Pin SMT			
LH1085AT	No Cross	6 Pin SMT			
LH1156AAB	PS7141L-1A	6 Pin SMT	Current Limiting Option Available	A	
LH1191AAB	PS7141L-1A	6 Pin SMT		A	
LH1192AAB	PS7141L-1A	6 Pin SMT		A	
LH1192AAB1	PS7141L-1A	6 Pin SMT		A	
LH1192AT	PS7141-1A	6 Pin DIP		A	
LH1192AT1	PS7141-1A	6 Pin DIP		A	
LH193AAB	PS7141L-2A	8 Pin SMT		A	
LH193AAB1	PS7141L-2A	8 Pin SMT		A	
LH1203AAB	No Cross	6 Pin SMT			
LH1203AAB1	No Cross	6 Pin SMT			

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Siemens	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LH1204AAC	PS7141L-2A	8 Pin SMT		A	
LH1204AAB	PS7141L-2A	8 Pin SMT		A	
LH1233AAB	No Cross	6 Pin SMT			
LH1233AAB1	No Cross	6 Pin SMT			
LH1233AT	No Cross	6 Pin DIP			
LH1298AAB	PS7141L-1B	6 Pin SMT	PS7341L-1B Available 3750 V Isolation	A	
LH1298AAB1	PS7141L-1B	6 Pin DIP	PS7341L-1B Available 3750 V Isolation	A	
LH1298AT	PS7141-1B	6 Pin DIP	PS7341-1B Available 3750 V Isolation	A	
LH1500AAB	PS7341L-1A	6 Pin SMT	PS714L1-1A	A	
LH1500AAB1	PS7341L-1A	6 Pin SMT	PS714L-1A	A	
LH1500AT	PS7341-1A	6 Pin DIP	PS7141L-1A	A	
LH1500AT1	PS7341-1A	6 Pin DIP	PS7141L-1A	A	
LH1501AAB	PS7341L-1B	6 Pin SMT	PS7141L-1B	A	
LH1501AAB1	PS7341L-1B	6 Pin SMT	PS7141L-1B	A	
LH1501AT	PS7341-1B	6 Pin DIP	PS7141-1B	A	
LH1501AT1	PS7341-1B	6 Pin DIP	PS7141-1B	A	
LH1502AAC	PS7141L-1C	8 Pin SMT		A	
LH1502AB	PS7141-1C	8 Pin DIP		A	
LH1503AAC	PS7141L-2A	8 Pin SMT		A	
LH1503AB	PS7141-2A	8 Pin DIP		A	
LH1504AAB	PS7141L-1A	6 Pin SMT		B	
LH1504AAB1	PS7141L-1A	6 Pin SMT		B	
LH1504AT	PS7141-1A	6 Pin DIP		B	
LH1504AT1	PS7141-1A	6 Pin DIP		B	
LH1505AAC	PS7141L-2A	8 Pin SMT		A	
LH1505AB	PS7141L-2A	8 Pin SMT		A	
LH1510AAB	PS7122L-1A	6 Pin SMT		A	
LH1510AT	PS7122-1A	6 Pin DIP		A	
LH1511AAB	PS7122L-1B	6 Pin SMT		A	
LH1511AT	PS7122-1B	6 Pin DIP		A	
LH1512AAC	PS7141L-1C	8 Pin SMT	400 V 150 mA	B	
LH1512AB	PS7141-1C	8 Pin DIP	400 V 150 mA	B	
LH1513AAC	PS7141L-2A	8 Pin SMT	400 V 150 mA	B	
LH1513AB	PS7141-2A	8 Pin DIP	400 V 150 mA	B	
LH1514AAC	PS7113L-2A	8 Pin SMT	100 V 350 mA	B	
LH1514AB	PS7113-2A	8 Pin DIP	100 V 350 mA	B	
LH1516AAB	PS7142L-2A	8 Pin SMT		B	
LH1516AT	PS7142-2A	8 Pin DIP		B	
LH1517AAB	PS7342L-1A	6 Pin SMT		B	
LH1517AT	PS7342-1A	6 Pin DIP		B	
LH1518AAB	PS7141L-1A	6 Pin SMT		B	
LH1518AT	PS7141-1A	6 Pin DIP		B	
LH1519AAB	No Cross	6 Pin DIP			
LH1519AT	No Cross	6 Pin DIP			
LH1520AAC	PS7141L-2A	8 Pin SMT		A	
LH1520AB	PS7141-2A	8 Pin DIP		A	
LH1521AAC	PS7141L-2B	8 Pin SMT		A	
LH1521AB	PS7141-2B	8 Pin DIP		A	
LH1522AAC	PS7522L-2A	8 Pin SMT		A	
LH1522AB	PS7522-2A	8 Pin DIP		A	
LH1523AAC	PS7522L-2B	8 Pin SMT	In Development	A	
LH1523AB	PS7522-2B	8 Pin DIP	In Development	A	
LH1524AAC	PS7141L-2A	8 Pin SMT	Diode Offset Not Used NEC	B	
LH1524AB	PS7141-2A	8 Pin DIP	Diode Offset Not Used NEC	B	
LH1525AAB	PS7341L-1A	6 Pin SMT		A	
LH1525ACD	PS7241-2A	8 Pin DIP		A	
LH1525AT	PS7341-1A	6 Pin DIP		A	
LH1526AAC	PS7141L-2A	8 Pin SMT		B	

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Siemens	Cross (Exact Alternate)	Package	Sales Tip(s)	Code	Comment(s)
LH1526ACE	PS7241-2A	8 Pin SOP	NEC Much Smaller Foot Print	B	
LH1526AB	PS7141-2A	8 Pin DIP		B	
LH1527AAB	PS7141L-1C	8 Pin SMT		C	
LH1527AAC	PS7141-1C	8 Pin DIP		C	
LH1527AB	PS7141-1C	8 Pin DIP		C	
LH1527AT	PS7141-1C	8 Pin DIP		C	
LH1528AAC	No Cross	8 Pin DIP	PS7241-AT5 1 Form A SOP Version	D	
LH1528AB	No Cross	8 Pin DIP	PS7241-AT5 1 Form A SOP Version	D	
LH1529AAC	PS7241-AT5	8 Pin SOP		C	
LH1529AB	PS7241-AT5	8 Pin SOP		C	
LH1529BAC	PS7241-AT5	8 Pin SOP		C	
LH1529BB	PS7241-AT5	8 Pin SOP		C	
LH1530AAB	PS7341L-1A	6 Pin SMT		A	
LH1530AT	PS7341-1A	6 Pin DIP		A	
LH1531AAC	PS7141L-2A	8 Pin SMT		A	
LH1531AB	PS7141-2A	8 Pin DIP		A	
LH1532AAC	PS7141L-2A	8 Pin SMT		A	
LH1532AB	PS7141-2A	8 Pin DIP		A	
LH1533AAC	PS7360L-1A	6 Pin SMT		A	
LH1533AB	PS7360-1A	6 Pin DIP		A	
LH1534HAC	No Cross	6 Pin DIP		A	
LH1534HB	No Cross	6 Pin DIP			
LH1535HAB	PS7341L-1A	6 Pin SMT		A	
LH1535HT	PS7341-1A	6 Pin DIP		A	
LH1536AAB	PS7113L-1A	6 Pin SMT	NEC V Load = 100 V	C	
LH1536AT	PS7113-1A	6 Pin DIP	NEC V Load = 100 V	C	
LH1537AAB	PS7141L-1C	6 Pin SMT		C	
LH1537AB	PS7141-1C	6 Pin DIP		C	
LH1537AAC	PS714L-1C	6 Pin SMT		C	
LH1537AT	PS7141-1C	6 Pin DIP		C	
LH1540AAB	PS7341CL-1A	6 Pin SMT		A	
LH1540AB	PS7341C-1A	6 Pin DIP		A	
LH1540AAB1	PS7341CL-1A	6 Pin SMT		A	
LH1540AT	PS7341C-1A	6 Pin DIP		A	
LH1540AT1	PS7341C-1A	6 Pin DIP		A	
LH1541AAB1	No Cross	6 Pin DIP			
LH1541AT1	No Cross	6 Pin DIP			
LH1544AAC	No Cross	6 Pin DIP			
LH1544AB	No Cross	6 Pin DIP			
LH1547AAB1	PS7341L-1A	6 Pin SMT		B	
LH1547AT1	PS7341-1A	6 Pin DIP		B	
LH1548ACE	PS7241-AT5	8 Pin SOP	NEC Much Smaller SOP	C	
LH1549HAC	PS7241-AT5	8 Pin SOP	NEC 8 PIN SOP	C	
LH1549HB	PS7241-AT5	8 Pin SOP	NEC 8 PIN SOP	C	
LH1550AAB	PS7341L-1A			A	
LH1550AAB1	PS7341L-1A			A	
LH1550AT	PS7341-1A			A	
LH1550AT1	PS7341-1A			A	
LH1551AAB1	In Development				
LH1551AT1	In Development				
LH1552AAC	In Development				
LH1552AB	In Development				
LH1553AAC	In Development				
LH1553AB	In Development				
LH1571AAC	In Development				
LH2559AAC	No Cross				
LH2559AB	No Cross				
LH2559ACE	In Development	16 PIN SOP		C	

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TAPE AND REEL AVAILABILITY BY SERIES

SOLID STATE RELAYS

PART NUMBER	PACKAGE QUANTITY	PART NUMBER	PACKAGE QUANTITY

PS71XX SERIES	
PS71XXL-1A-E3	1000
PS71XXL-1A-E4	1000
PS71XXL-1B-E3	1000
PS71XXL-1B-E4	1000
PS71XXL-1C-E3	1000
PS71XXL-1C-E4	1000
PS71XXL-2A-E3	1000
PS71XXL-2A-E4	1000
PS71XXL-2B-E3	1000
PS71XXL-2B-E4	1000

PS73XX SERIES	
PS73XXL-1A-E3	1000
PS73XXL-1A-E4	1000
PS734XCL-1A-E3	1000
PS734XCL-1A-E4	1000

PS72XX SERIES	
PS72XX-1A-E3	900
PS72XX-1A-E4	900
PS72XX-1A-F3	3500
PS72XX-1A-F4	3500
PS72XX-2A-F3	1500
PS72XX-2A-F4	1500
PS72XX-AT5-F3	1500
PS72XX-AT5-F4	1500
PS72XX-AT1-F3	1500
PS72XX-AT1-F4	1500

PS75XX SERIES	
PS75XXL-1A-E3	1000
PS75XXL-1A-E4	1000
PS75XXL-2A-E3	1000
PS75XXL-2A-E4	1000

INTERNATIONAL SAFETY STANDARDS

SOLID STATE RELAYS PARTS NUMBER				PS71XX-1A PS71XX-2A	PS71XX-1B PS71XX-2B PS71XX-1C	PS72XX-1A	PS72XX-2A	PS7241-AT1 PS7241-AT5	PS73XX-1A PS73XXC-1A PS73XXC-1B	PS75XX-1A PS75XX-2A
PARAMETER (Units: mm) (Minimum Dist.)		Outer Creepage Distance		7.0	7.0	7.0	7.0	7.0	7.0	7.0
		Clearance Distance		7.0	7.0	7.0	7.0	7.0	7.0	7.0
		Isolation Distance		0.4	0.4	0.4	0.4	0.4	0.4	0.4
		Inner Creepage Distance		4.0	4.0	4.0	4.0	4.0	4.0	4.0
		Breakdown Voltage		1.5k	1.5k	1.5k	1.5k	1.5k	3.75k	1.5k
Organization	**Country**	**Standard No.**	**NEC Approval No.**							
UL	USA	UL1577	E72422(S)	●	●	⊙	●	●	●	●
CSA	Canada	CL9073X0030	CA101391	⊙	⊙	⊙	⊙	⊙	⊙	⊙
VDE	Germany	VDE0884	See Right Table	⊙	⊙	⊙	⊙	⊙	⊙	⊙
BSI	UK	BS415 /EC55	7112 (4 pin) 7250 (6 pin)	●	●	●	●	●	●	●
		BS7002 /EC950	7240 (4 pin) 7615 (6 pin)	●	⊙	⊙	⊙	●	●	●
SEMKO	Sweden	SS-441-01-55	9317144	–	–	–	–	–		
		SS-EN-60-950	9317144	–	–	–	–	–		
SETI	Finland	E 65-89	167265-08	–	–	–	–	–		
		SFS-EN-60-950	167265-08	–	–	–	–	–		
NEMKO	Norway	NEK-HD 195 S6	A21409	–	–	–	–	–		
		NEK-EN-60-950	A21409	–	–	–	–	–		
DEMKO	Denmark	Section 101	300535	–	–	–	–	–		
		Section 137	300535		–	–	–	–		

● Approved ⊙ Under Application ○ Under Planning — N/A

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