

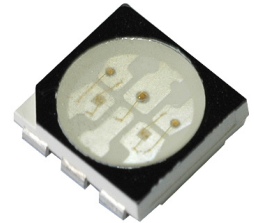
DomiLEDTM

With the intense colors that seem to glow with energy and its significant brightness, DomiLEDTM white LED is a highly reliable design device. Its dynamic nature makes it perfect choice for lighthing applications, office and home applications and standard industrial applications.



Features:

- > High brightness tri-color surface mount LED.
- > Black coated top surface to enhance contrast
- > 120° viewing angle.
- > Large light emitting window.
- > Compact package outline (LxWxH) of 5.3 x 5.2 x 1.4mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.



Applications:

- > Lighting: garden light, architecture lighting, general lighting. etc
- > Backlighting (TFT LCD display), flash light, architectural lighting.



Optical Characteristics at Tj = 25°C

Part Ordering Number	Color, λ_{dom} (nm)			Viewing Angle	Luminous Intensity IF = 20mA IV (mcd)		
	Chip #1	Chip #2	Chip #3		Chip #1	Chip #2	Chip #3
DBRTB-DJB-U1U2+V2W1+S2T1-1	Red 622nm	True Green 525nm	Blue 470nm	120	450.0 - 715.0	900.0 - 1400.0	224.0 - 355.0

NOTE:

1. Reel comes in a quantity of 1000 units per reel.
2. Luminous intensity is measured with an accuracy of $\pm 11\%$.
3. All electrical and optical data are measured at room temperature; Ta = Tj = 25°C.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If = 20 mA / Chip		
	Min. (V)	Typ. (V)	Max. (V)
Red	2.0	2.1	2.6
True Green	3.0	3.2	3.6
Blue	3.0	3.2	3.6

Forward Voltage, Vf is measured with an accuracy of ± 0.1 V.

Absolute Maximum Ratings

	Maximum Value	
DC forward current	Red; AlInGaP=30; True Green, Blue; InGaN=25	mA
Peak pulse current; (tp \leq 10 μ s, Duty cycle = 0.1)	Red ; AlInGaP=100; True Green, Blue; InGaN=100	mA
Reverse voltage	Red; AlInGaP=5; True Green, Blue; InGaN= Not for reverse bias	V
ESD threshold (HBM)	2000	V
LED junction temperature	125	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C

Wavelength Grouping at Tj = 25°C

Color	Group	Wavelength distribution (nm)
Red	Full	620 - 630
True Green	Full	520 - 535
	A	520 - 525
	B	525 - 530
	C	530 - 535
Blue	Full	465 - 475
	A	465 - 470
	B	470 - 475

Dominant wavelength is measured with an accuracy of ±1nm.

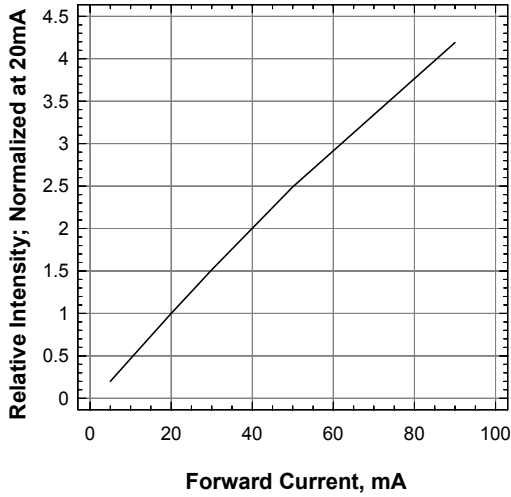
Luminous Intensity Group at Tj=25°C

Only one IV group is allowed for each chip within reel.

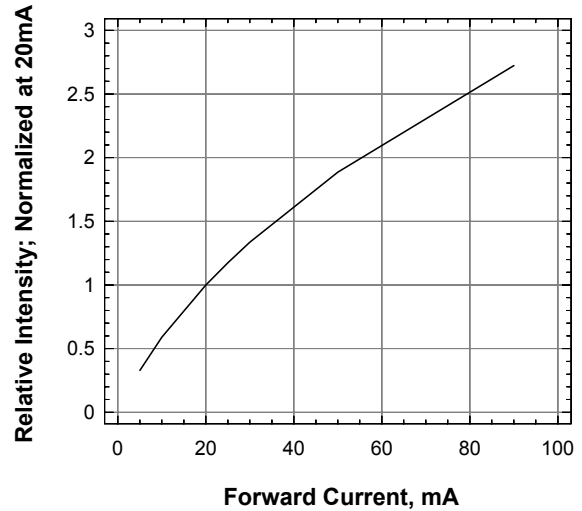
Brightness Group	Luminous Intensity IV (mcd)		
	Chip #1	Chip #2	Chip #3
U1V2S2	450.0 ... 560.0	900.0 ... 1125.0	224.0 ... 285.0
U1V2T1	450.0 ... 560.0	900.0 ... 1125.0	285.0 ... 355.0
U1W1S2	450.0 ... 560.0	1125.0 ... 1400.0	224.0 ... 285.0
U1W1T1	450.0 ... 560.0	1125.0 ... 1400.0	285.0 ... 355.0
U2V2S2	560.0 ... 715.0	900.0 ... 1125.0	224.0 ... 285.0
U2V2T1	560.0 ... 715.0	900.0 ... 1125.0	285.0 ... 355.0
U2W1S2	560.0 ... 715.0	1125.0 ... 1400.0	224.0 ... 285.0
U2W1T1	560.0 ... 715.0	1125.0 ... 1400.0	285.0 ... 355.0

Luminous intensity is measured with an accuracy of ± 11%.

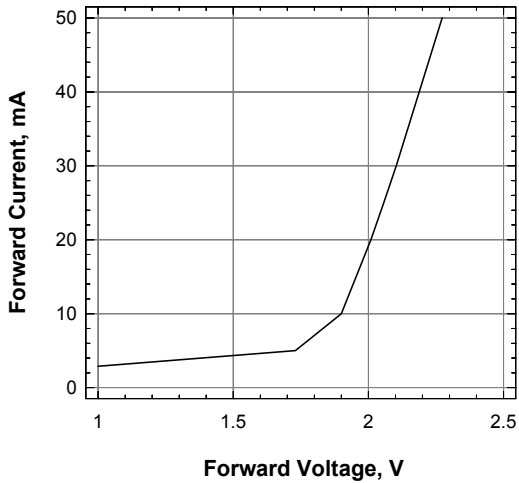
Relative Intensity Vs Forward Current (Red)



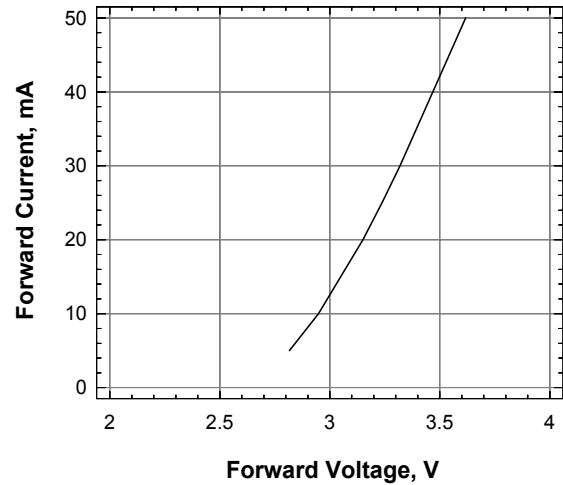
Relative Intensity Vs Forward Current (Blue and True Green)



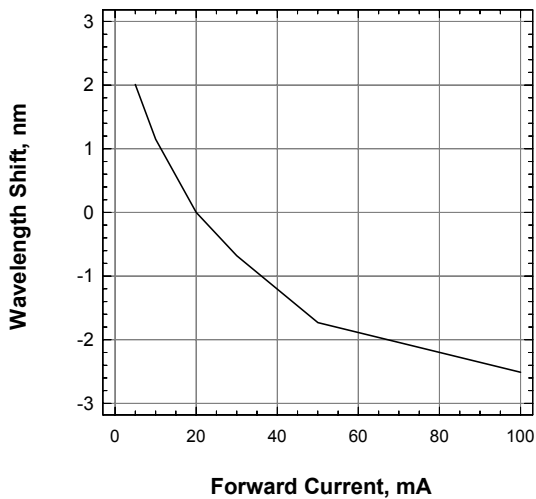
Forward Current Vs Forward Voltage (Red)



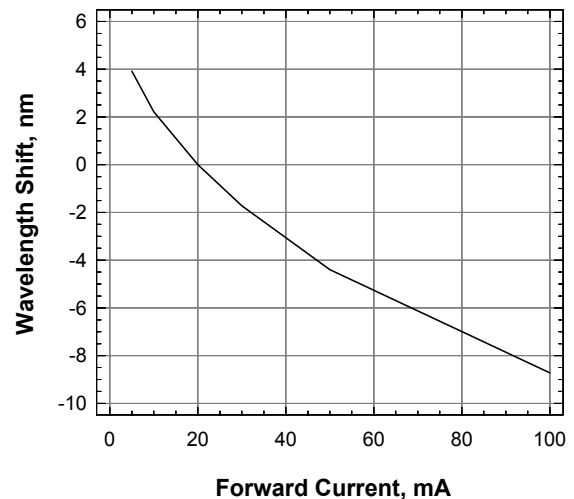
Forward Current Vs Forward Voltage (Blue and True Green)



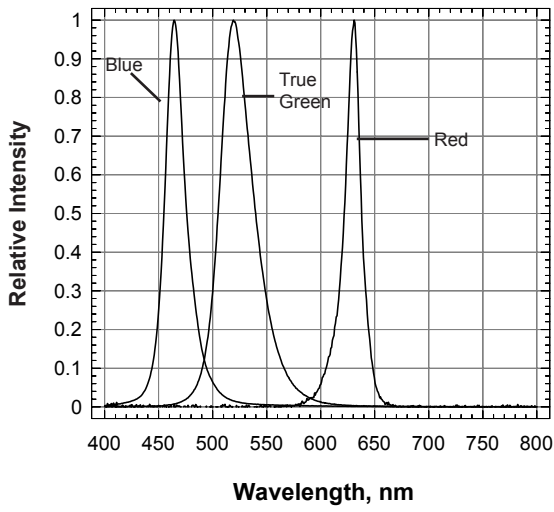
Wavelength Shift Vs Forward Current (Blue)



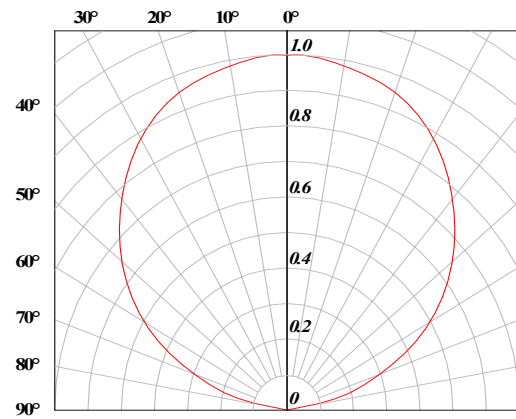
Wavelength Shift Vs Forward Current (True Green)



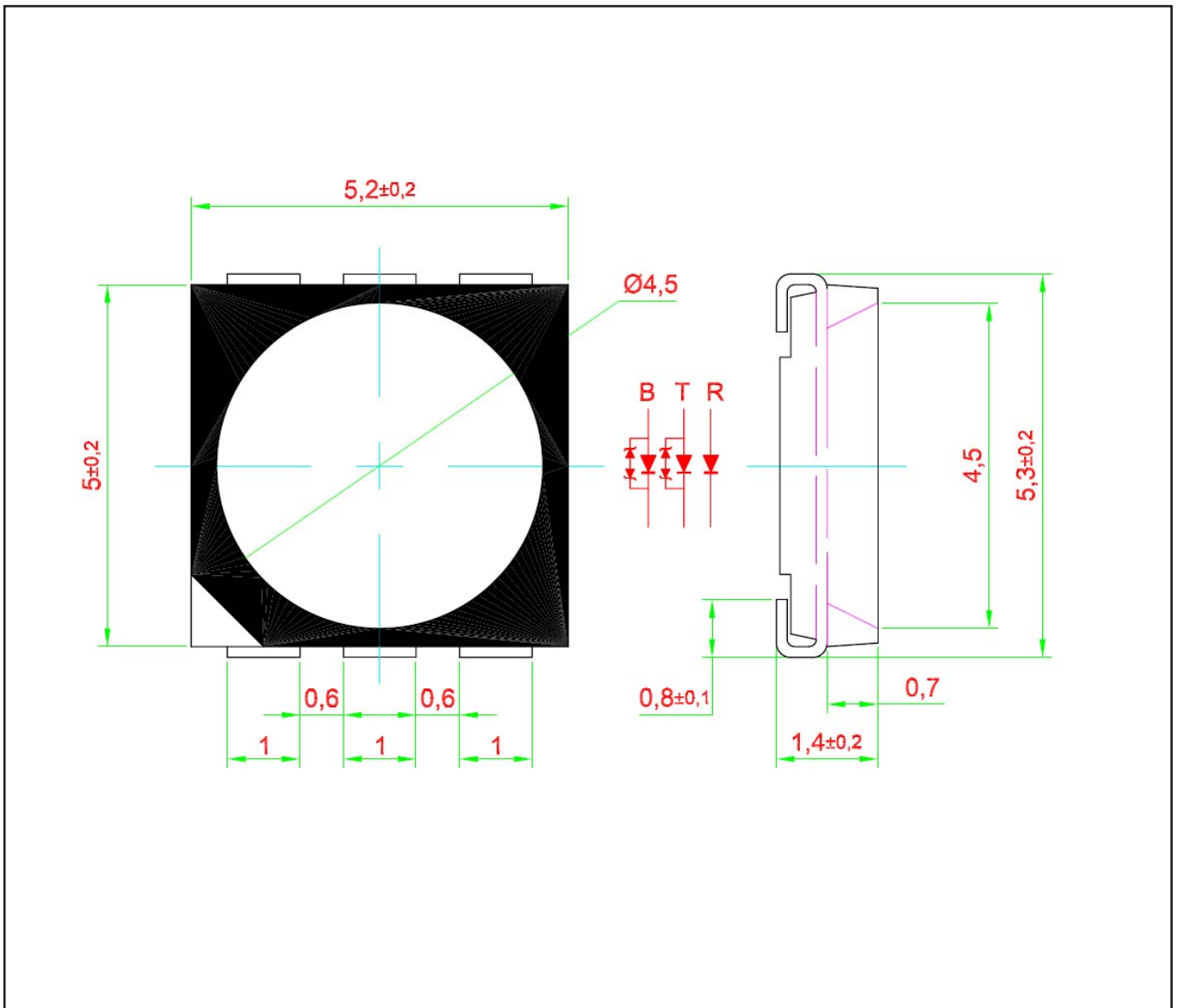
Relative Intensity vs Wavelength



Radiation Pattern



Maxi DomiLED™ : DBRTB-DJB Package Outlines

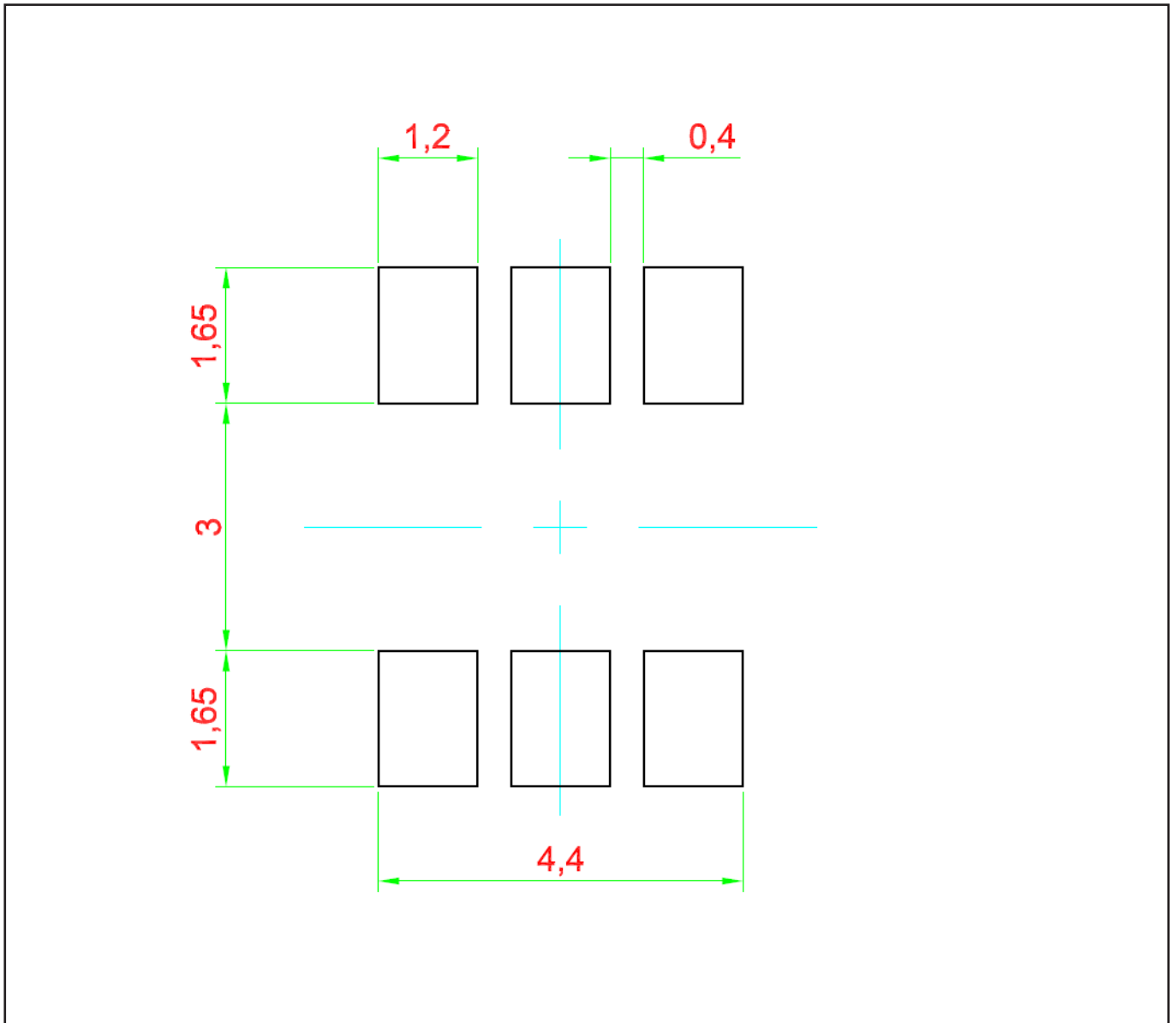


Materials

Material	
Lead Frame	Cu Alloy With Ag Plating
Housing	High temperature resistant plastic, PPA
Encapsulant	Silicone resin
Lead-finishing	Ag Plating

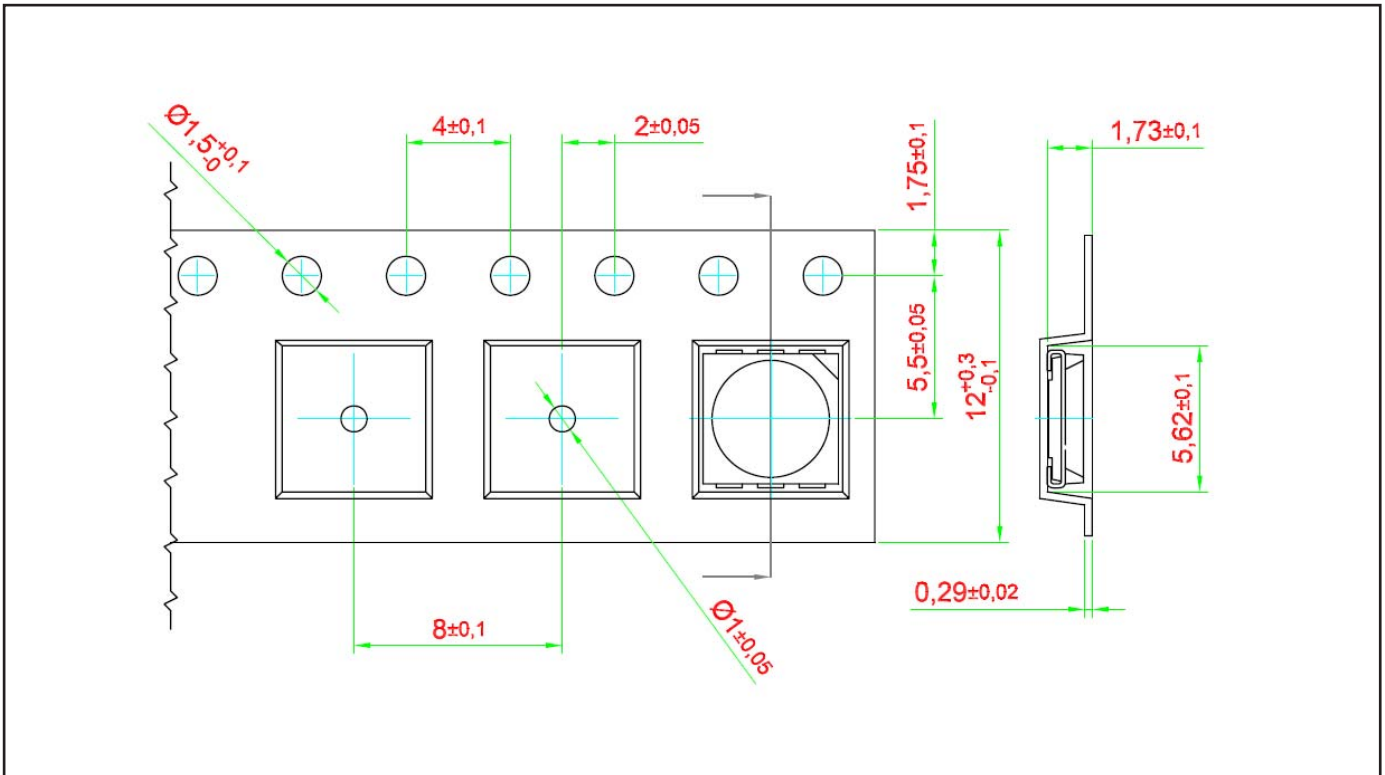
Note: Package is Pb-free.

Recommended Solder Pad

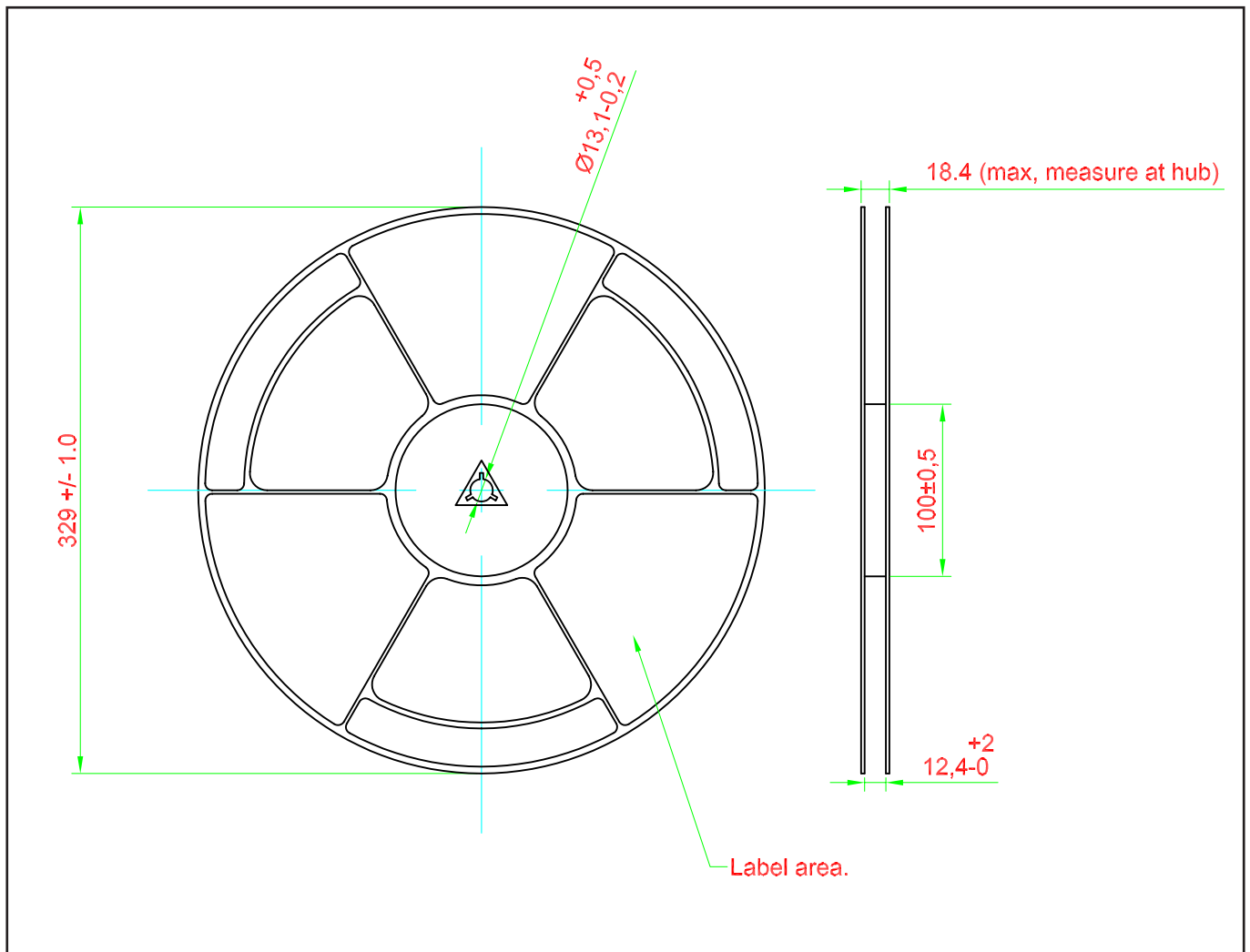


Taping and orientation

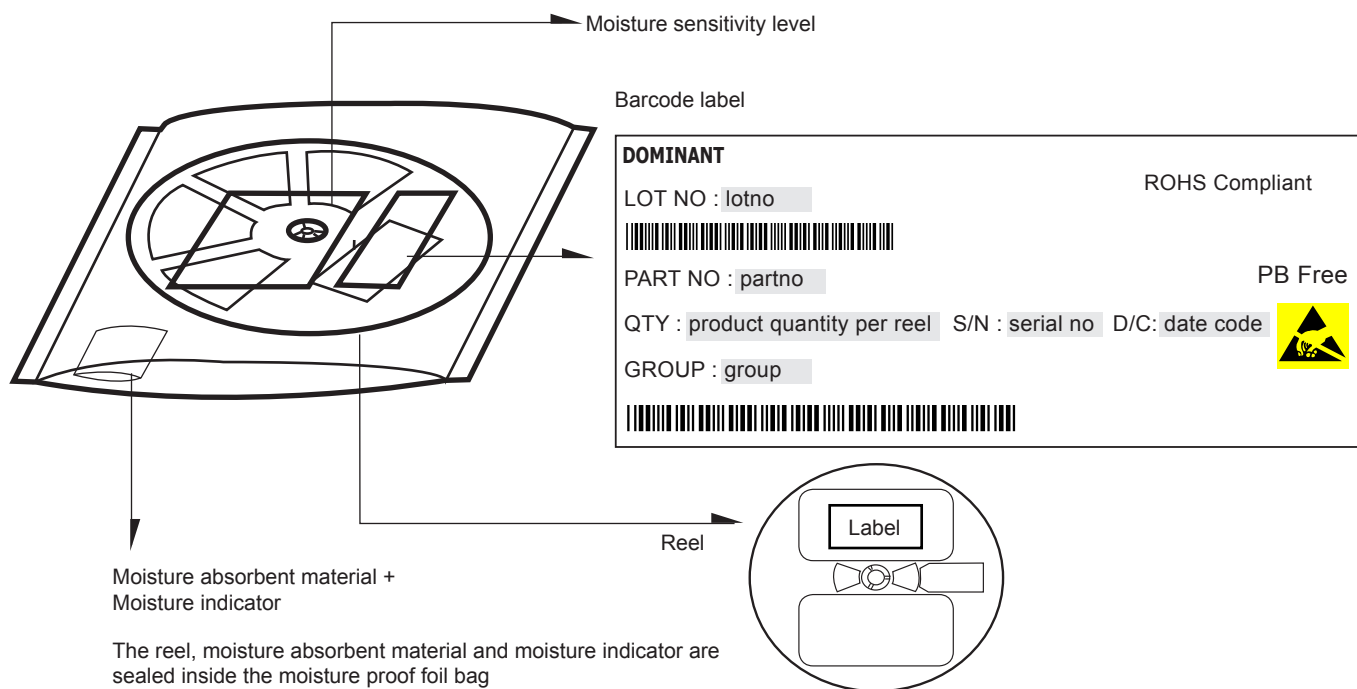
- Reels come in quantity of 1000 units.
- Reel diameter is 180 mm.



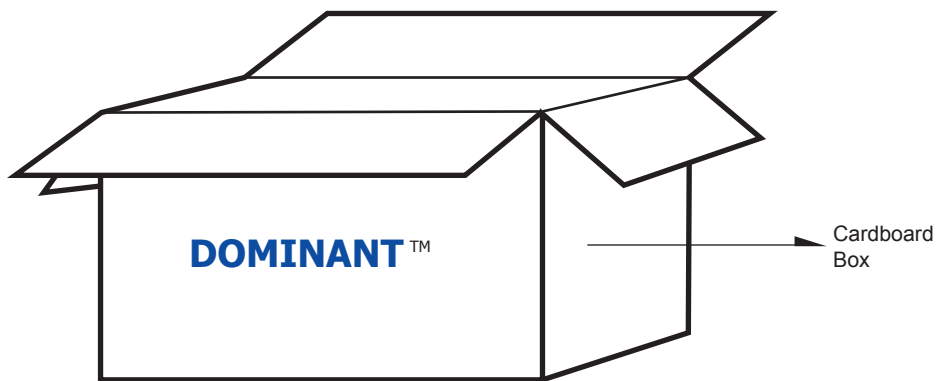
Packaging Specification



Packaging Specification



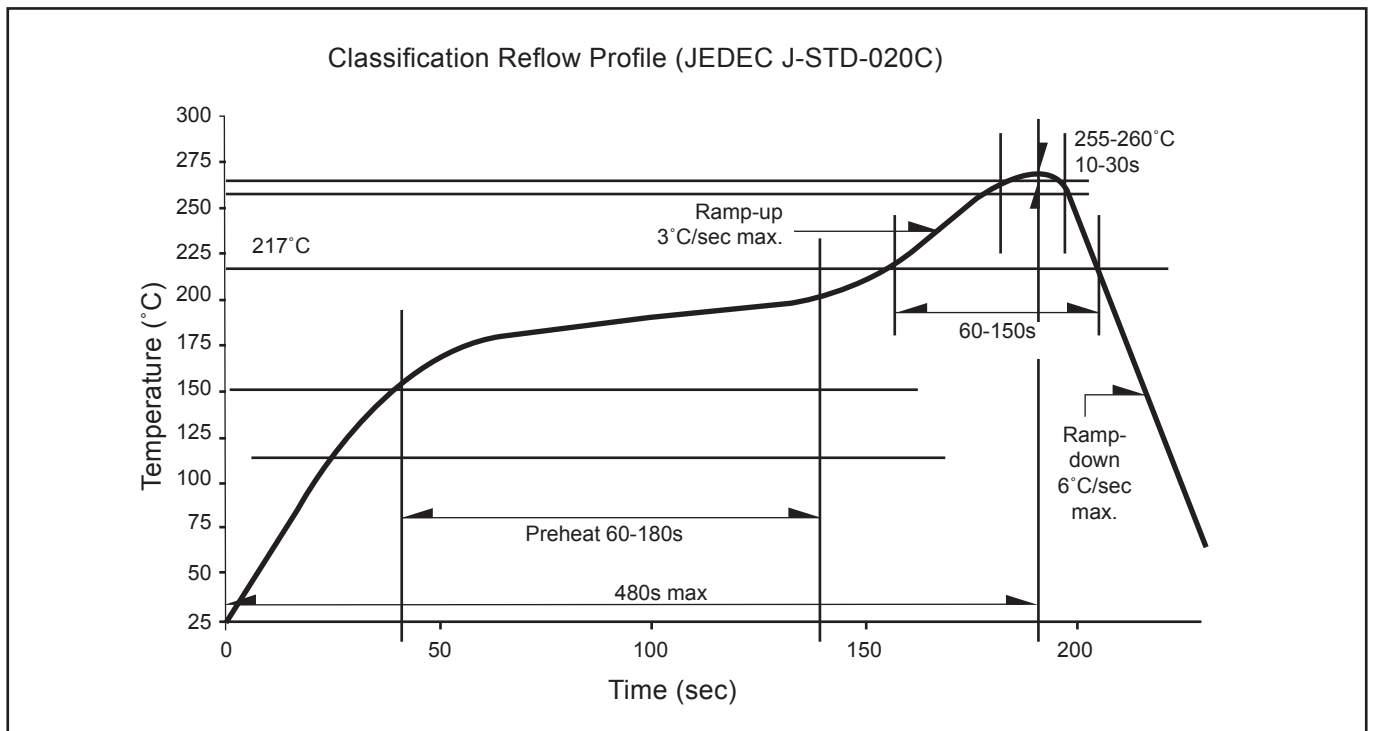
	Average 1pc Maxi DomiLED	1 completed bag (1000pcs)
Weight (gram)	0.044	166 ± 10



For Maxi DomiLED™

Cardboard Box Size	Dimensions (mm)	Empty Box Weight (kg)	Reel / Box	Quantity / Box (pcs)
Small	300 x 250 x 250	0.58	15 reels MAX	15,000 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	96,000 MAX

Recommended Pb-free Soldering Profile



About Us

DOMINANT Opto Technologies is a dynamic Malaysian Corporation that is among the world's leading SMT LED Manufacturers. An excellence – driven organization, it offers a comprehensive product range for diverse industries and applications. Featuring an internationally certified quality assurance acclaim, DOMINANT's extra bright LEDs are perfectly suited for various lighting applications in the automotive, consumer and communications as well as industrial sectors. With extensive industry experience and relentless pursuit of innovation, DOMINANT's state-of-art manufacturing, research and testing capabilities have become a trusted and reliable brand across the globe. More information about DOMINANT Opto Technologies can be found on the Internet at <http://www.dominant-semi.com>.

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