

Power DomiLED™

With its significant power in terms brightness, viewing angle and variety of application possibilities, Power DomiLED™ truly is a standout performer! Ideal for automotive interior lighting as well as home, office and industrial applications, it is also a proven performer in electronic signs and signals.



Features:

- > High brightness surface mount LED using thin film technology.
- > 120° viewing angle.
- > Small package outline (LxWxH) of 3.6 x 2.8 x 3.5 mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.



Applications:

> Automotive:

Interior applications, eg: switches, telematics, climate control system, dashboard, etc.

Exterior applications, eg: signal lighting, Center High Mounted Stop Light (CHMSL)

> Signage: full colour display video notice board, signage, special effect lighting.

> Lighting: architecture lighting, general lighting, garden light, channel light.



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ IF = 30mA		
			Min.	Typ.	Max.
DWP-SK3-TU2-1	Pure Green, 560nm	30	285.0	450.0	715.0

NOTE

1. All part number above comes in a quantity of 500 units per reel.
2. Luminous intensity is measured with an accuracy of ± 11%.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
4. An optional Vf binning is also available upon request. Binning scheme is as per following table.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If = 30mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DWx-SK3	1.90	2.20	2.60	12

Forward voltages are measure using a current pulse of 1 ms and with an accuracy of ± 0.1V.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	50	mA
Peak pulse current; (tp ≤ 10µs, Duty cycle = 0.1)	100	mA
Reverse voltage	12	V
ESD threshold (HBM)	2	kV
LED junction temperature	125	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	135	mW

Wavelength Grouping at Tj= 25°C

Color	Group	Wavelength distribution (nm)
DWP; Pure Green	Full	555.5 - 564.5
	X	555.5 - 558.5
	Y	558.5 - 561.5
	Z	561.5 - 564.5

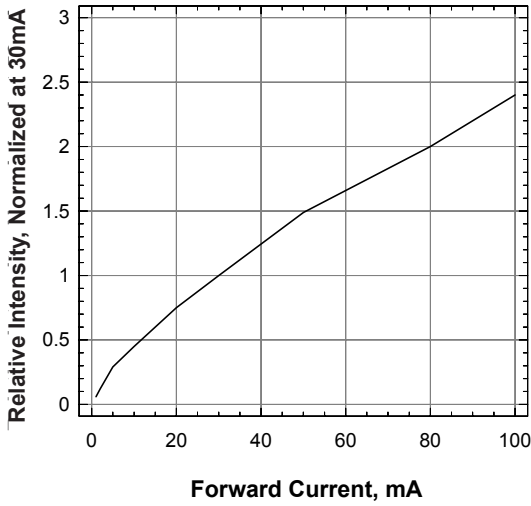
Dominant wavelength is measured with an accuracy of ± 1 nm at a drive current of 50mA

Luminous Intensity Group at Tj=25°C

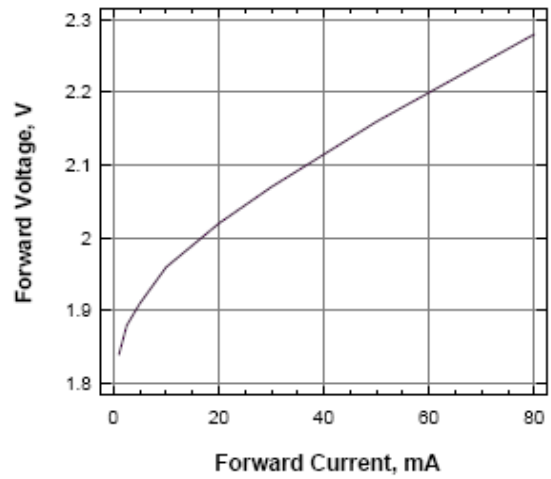
Brightness Group	Luminous Intensity IV (mcd)
T1	285.0 ... 355.0
T2	355.0 ... 450.0
U1	450.0 ... 560.0
U2	560.0 ... 715.0

Luminous intensity is measured with an accuracy of $\pm 11\%$.

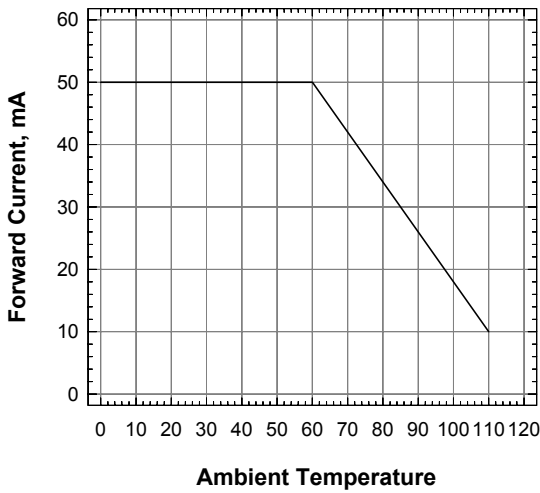
Relative Intensity Vs Forward Current



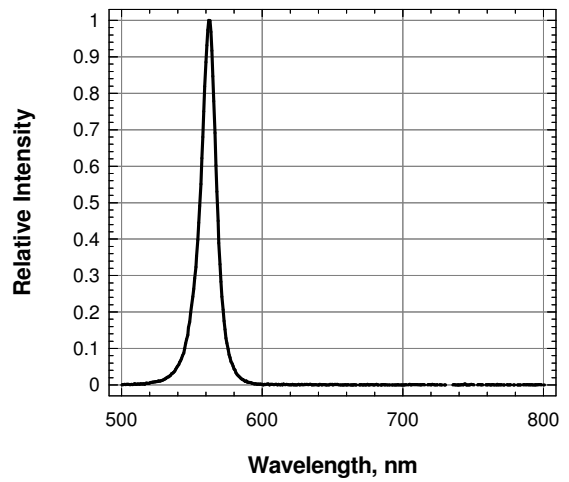
Forward Current Vs Forward Voltage



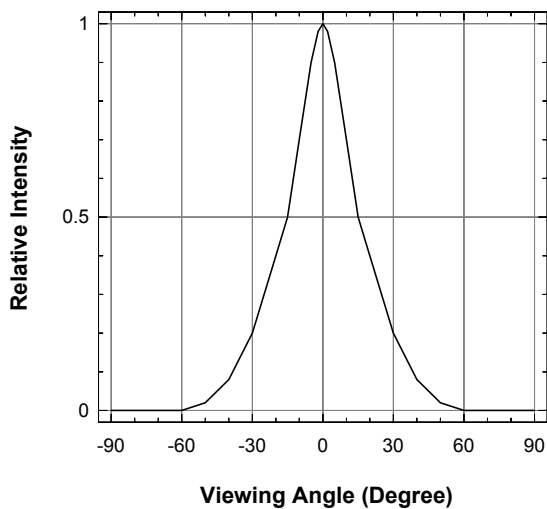
Maximum Current Vs Temperature



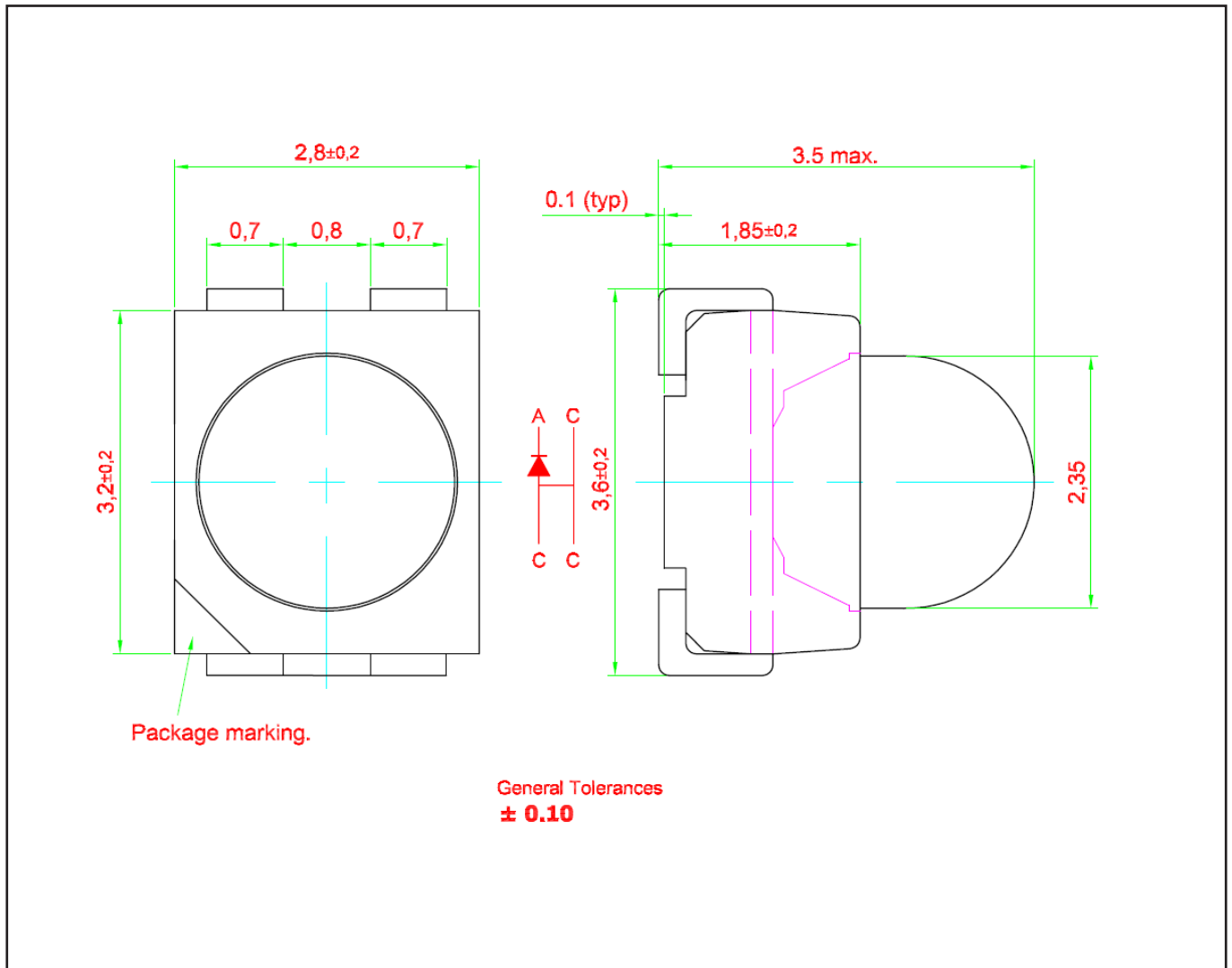
Relative Intensity Vs Wavelength



Radiation Pattern (2θ=30°)



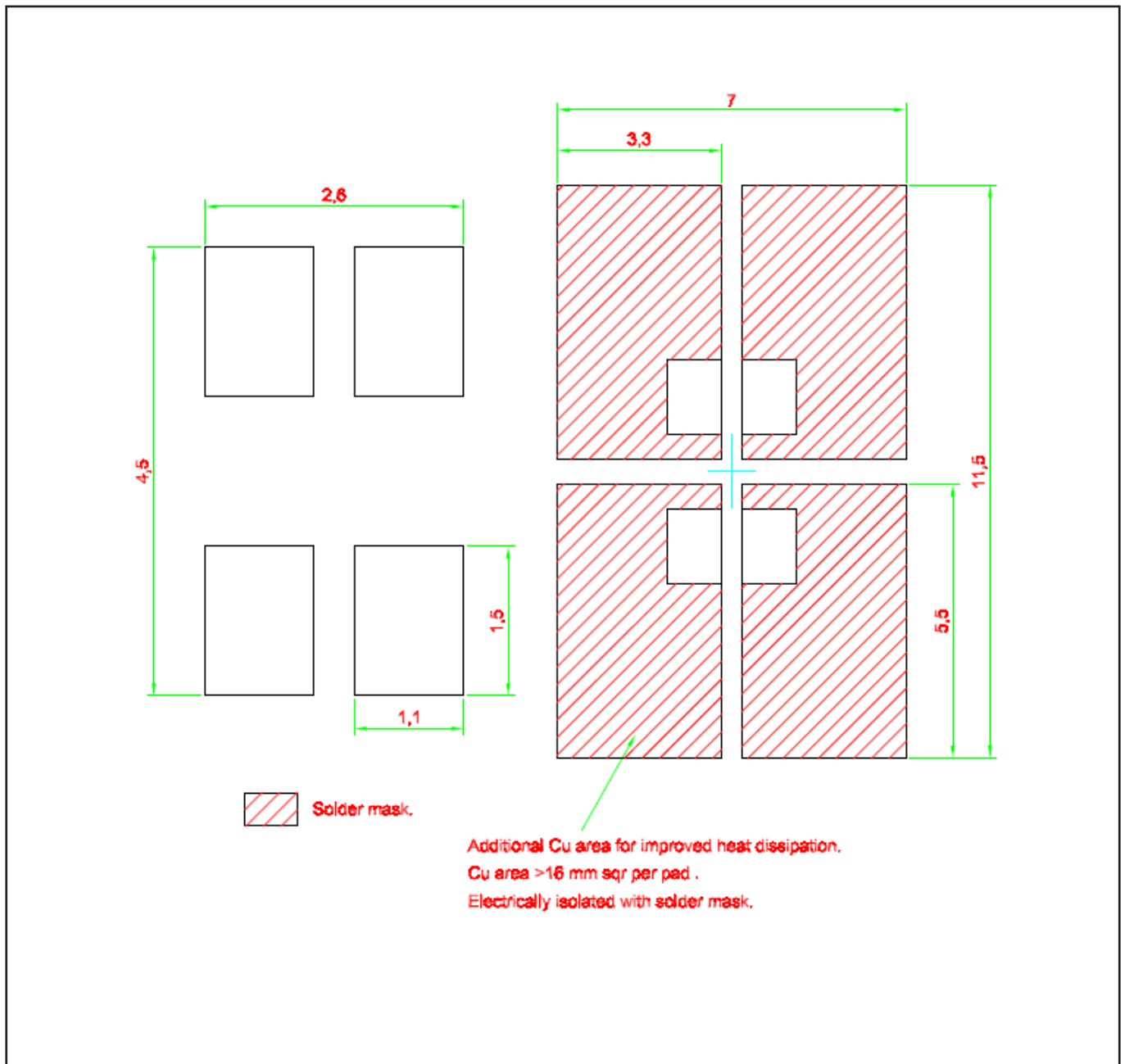
DomiLED™ • AllnGaP With Lens : DWx-SK3 Package Outlines



Material

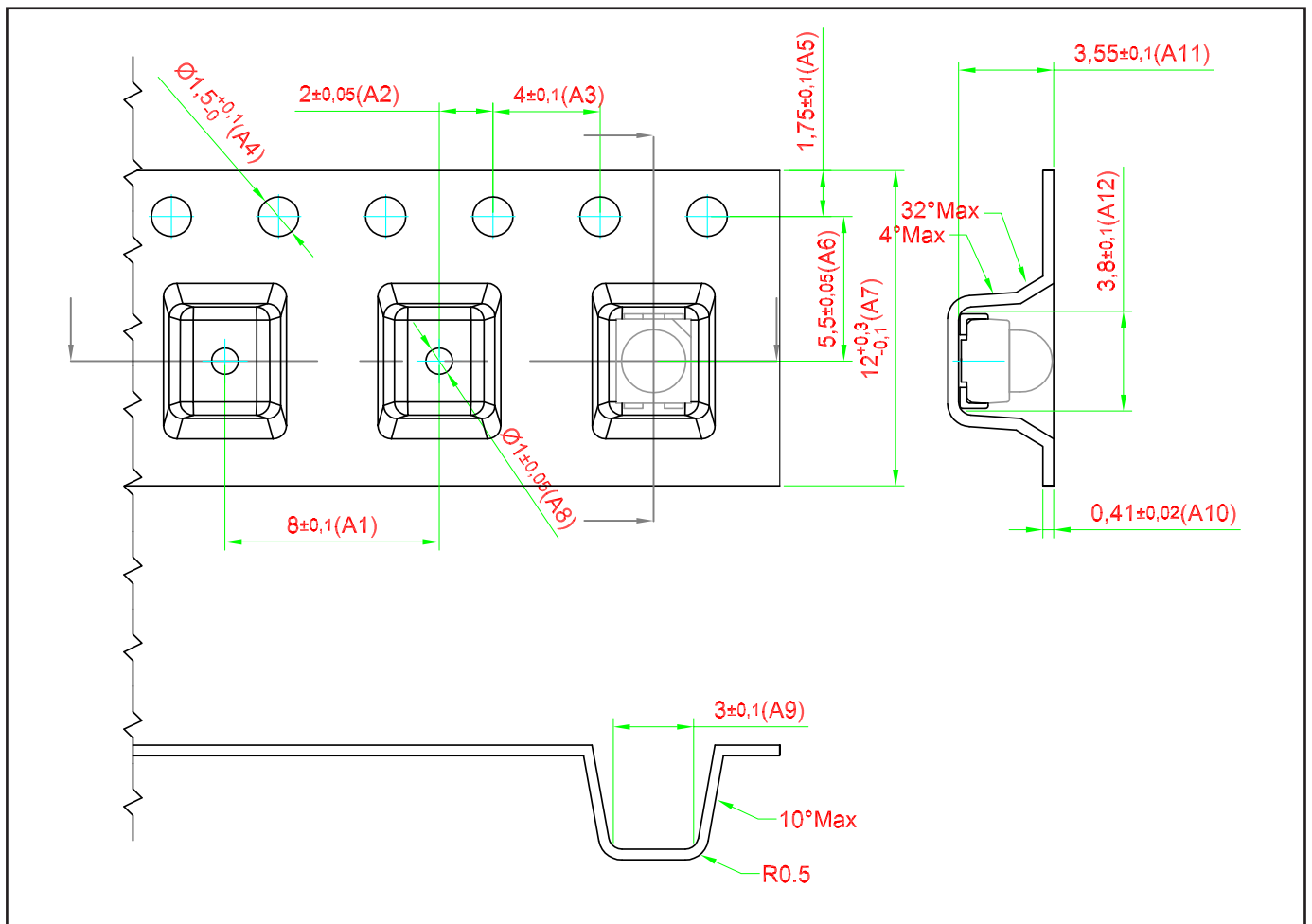
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Silicone resin
Soldering Leads	Sn Plating

Recommended Solder Pad

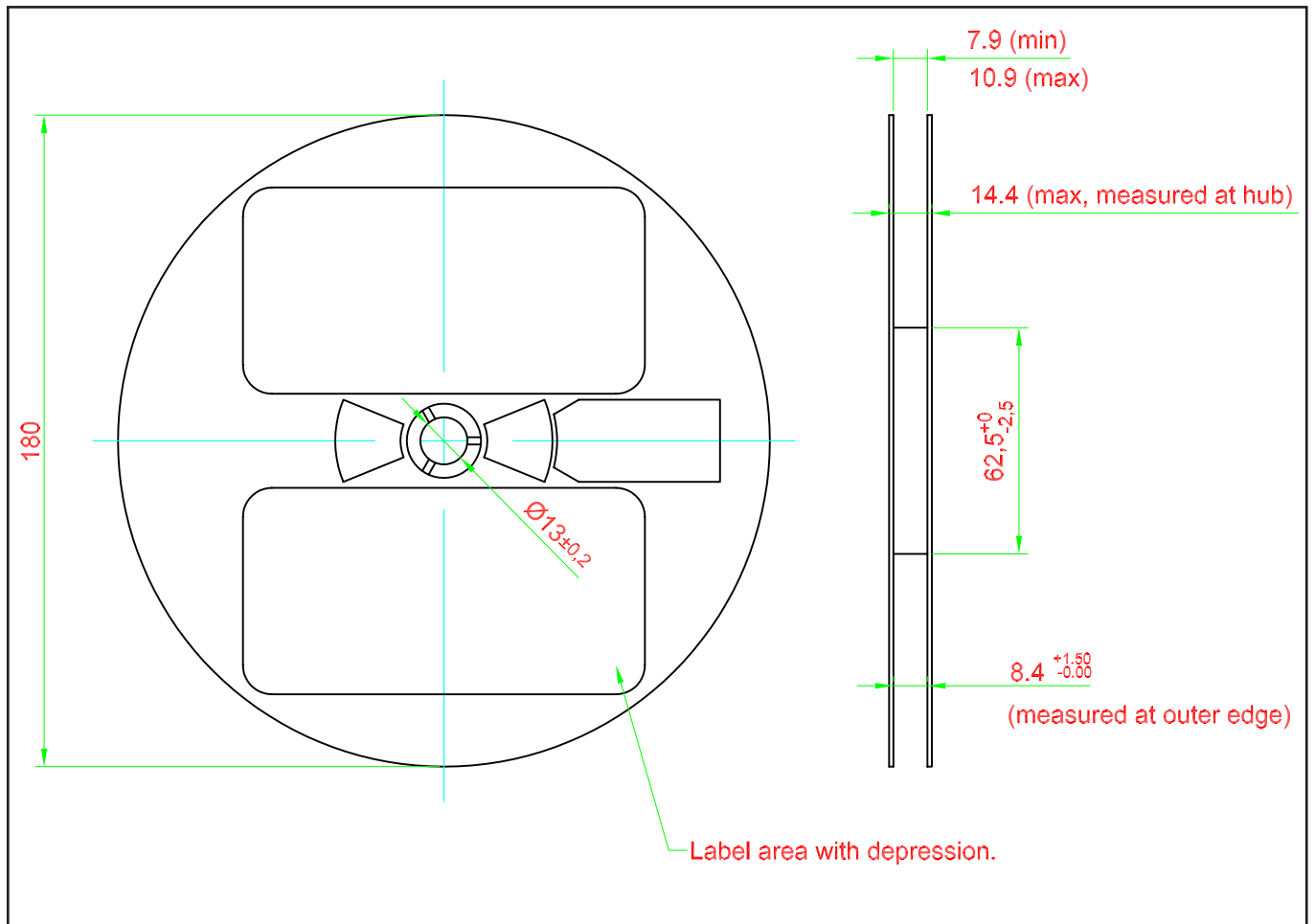


Taping and orientation

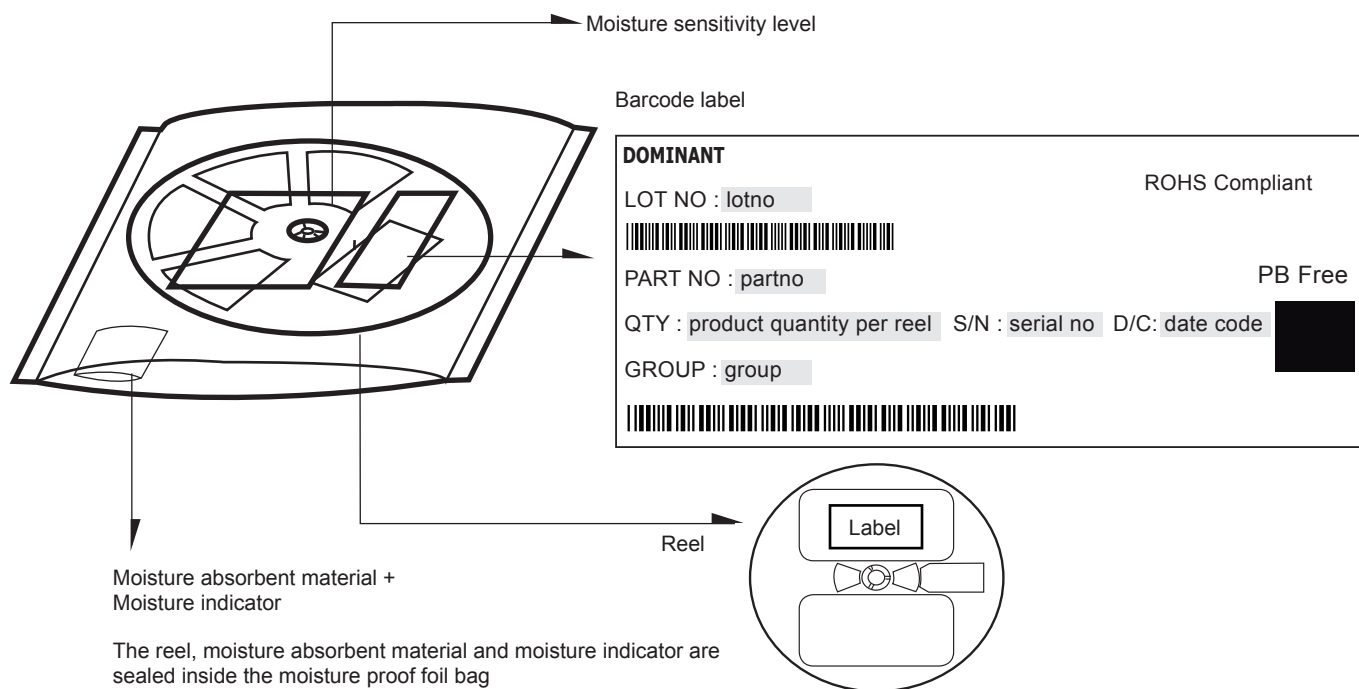
- Reels come in quantity of 500 units.
- Reel diameter is 180 mm.



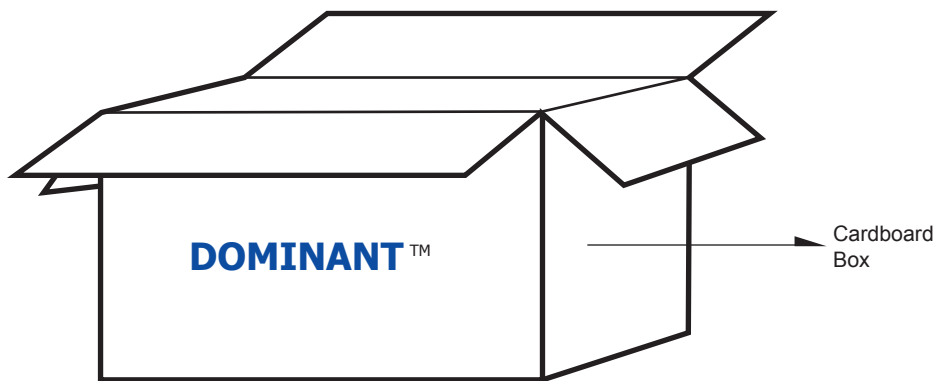
Packaging Specification



Packaging Specification



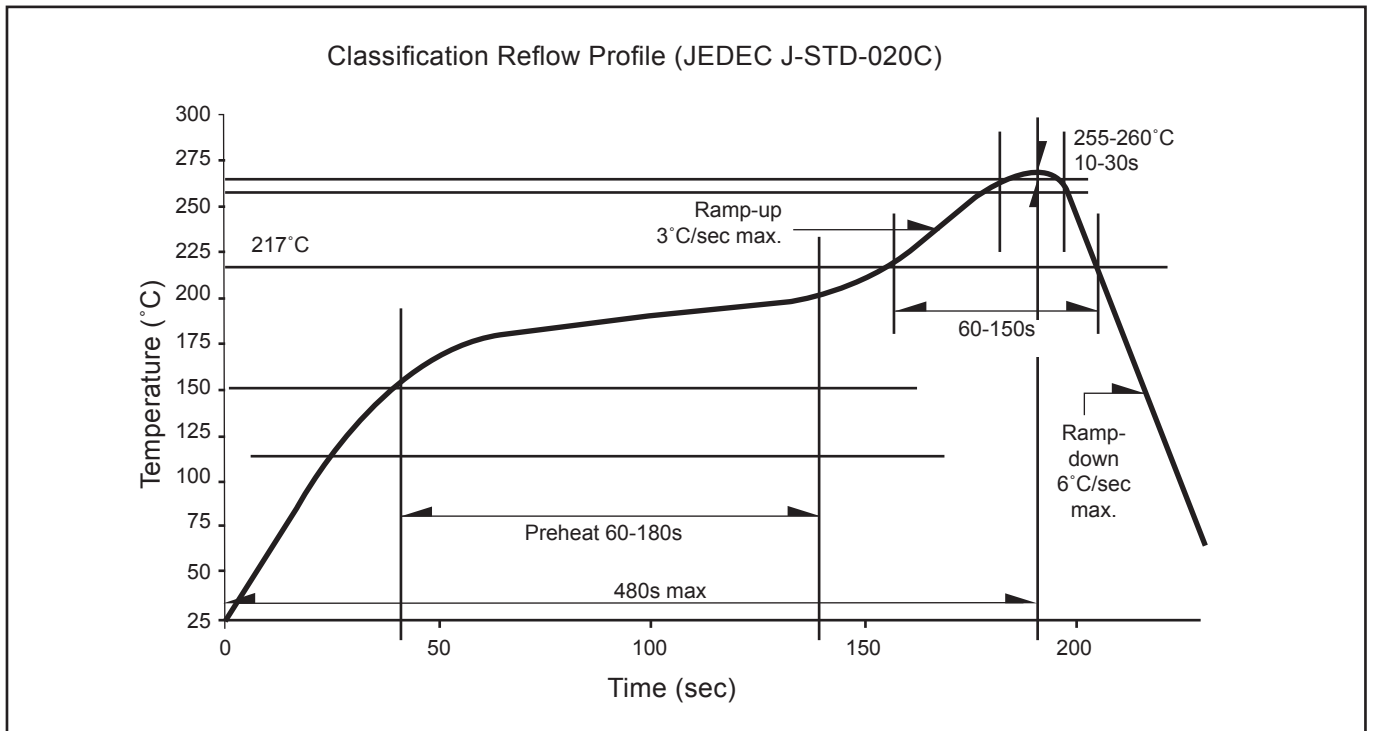
	Average 1pc Power DomiLED	1 completed bag (500pcs)
Weight (gram)	0.034	140 ± 10



For Power 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	7,500 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	48,000 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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