

DomiLED[™]

Synonymous with function and performance, the DomiLED[™] series is perfectly suited for a variety of cross-industrial applications due to its small package outline, durability and superior brightness.



Features:

- > High brightness surface mount LED using thin film technology.
- > 120° viewing angle.
- > Small package outline (LxWxH) of 3.2 x 2.8 x 1.8mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to both IR reflow soldering.
- > Environmental friendly; RoHS compliance.



Applications:

- > Automotive: Interior applications, eg: switches, telematics, climate control system, dashboard, etc
- > Signage: full colour display video notice board, signage, special effect lighting.
- > Industrial: white goods (eg: Oven, microwave, etc.), light bar, illuminated advertising.



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Radiant Intensity @ IF = 20mA		IE (mW/sr)
			Min.	Typ.	Max.
DRH-MJS-HJ2-1	Hyper Red, 660nm	120	2.85	4.50	7.20

NOTE

1. All part number above comes in a quantity of 2000 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 = 20mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DRH-MJS	1.8	2.1	2.6	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 = 0.10)	100	mA
Reverse voltage	12	V
ESD threshold (HBM)	2	kV
LED junction temperature	120	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	80	mW
Thermal resistance		
- Junction / ambient, R _{th JA}	380	K/W
- Junction / solder point, R _{th JS}	280	K/W
(Mounting on FR4 PCB, pad size ≥ 16 mm ² per pad)		

Wavelength Grouping at T_j=25°C

Color	Group	Peak Wavelength distribution (nm)
DRH, Hyper Red	Full	655 - 665

Wavelength is measured with an accuracy of ± 1 nm.

Luminous Intensity Group at Tj=25°C

Brightness Group	Radiant Intensity IE(mW/sr)
H1	2.85 ... 3.55
H2	3.55 ... 4.50
J1	4.50 ... 5.60
J2	5.60 ... 7.20

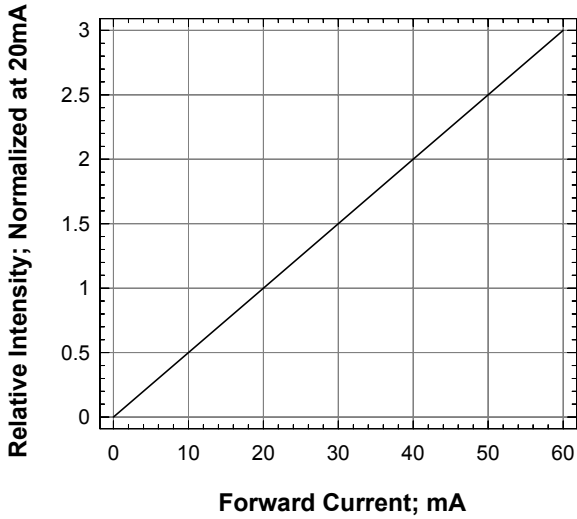
Luminous intensity is measured with an accuracy of ± 11%.

Vf Binning (Optional)

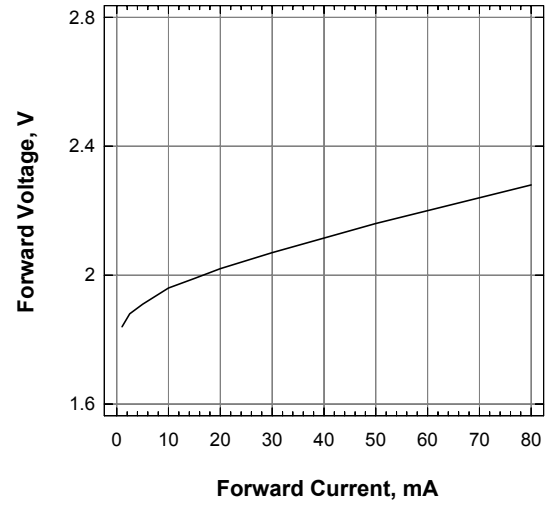
Vf Bin @ 20mA	Forward Voltage (V)
V1	1.80 ... 1.90
V2	1.90 ... 2.00
V3	2.00 ... 2.10
V4	2.10 ... 2.20
V5	2.20 ... 2.30
V6	2.30 ... 2.40
V7	2.40 ... 2.50
V8	2.50 ... 2.60

Forward voltage, Vf is measured with an accuracy of ± 0.1 V.
Please consult sales & marketing for special part number to incorporate Vf binning.

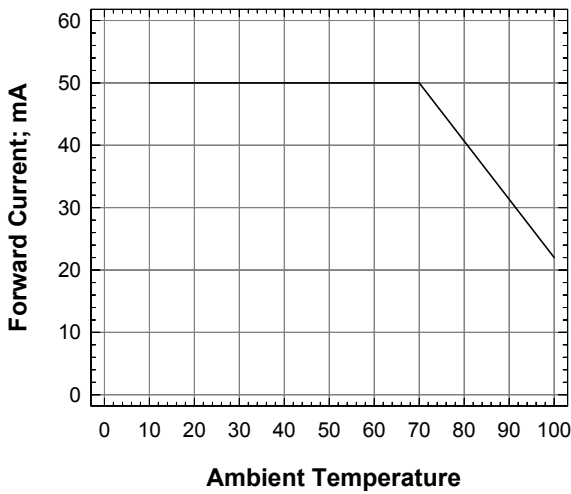
Relative Intensity Vs Forward Current



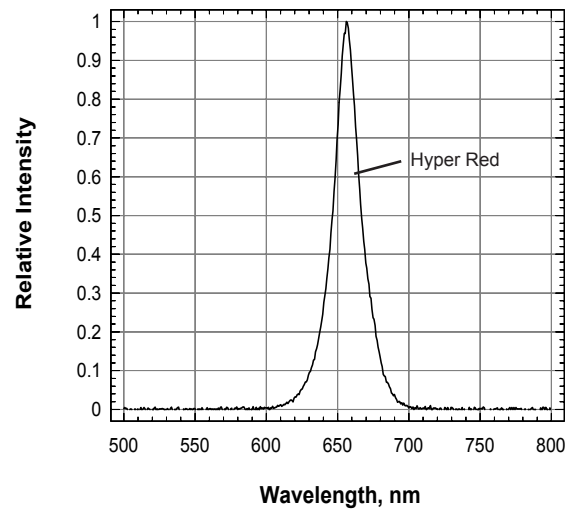
Forward Voltage Vs Forward Current



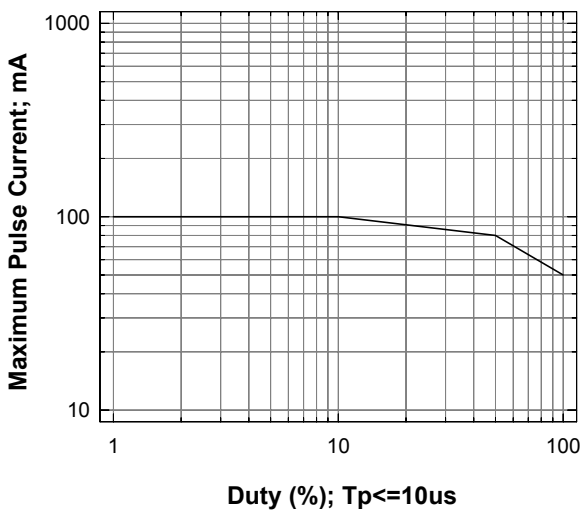
Forward Current Vs Ambient Temperature



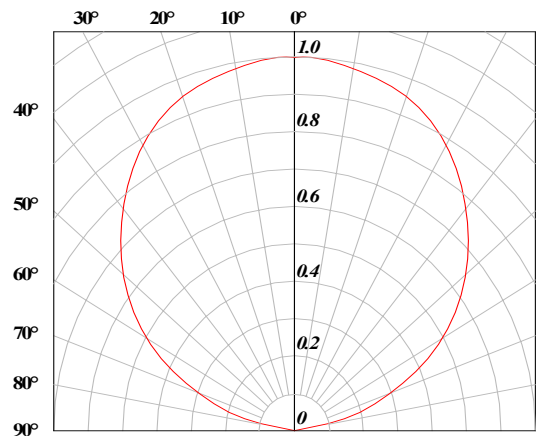
Relative Spectra Emission



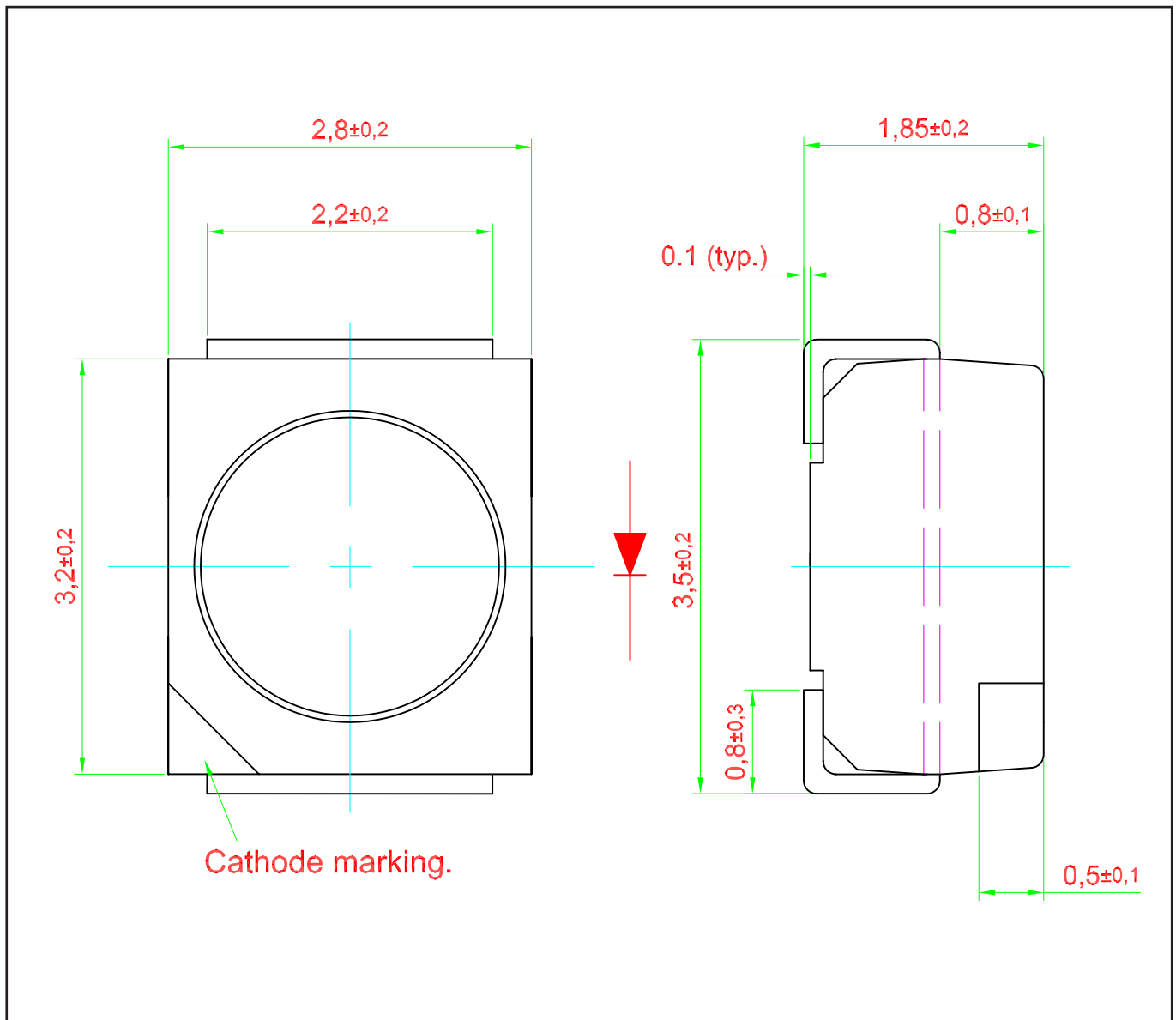
Maximum Pulse Current Vs Duty Cycle



Radiation Pattern



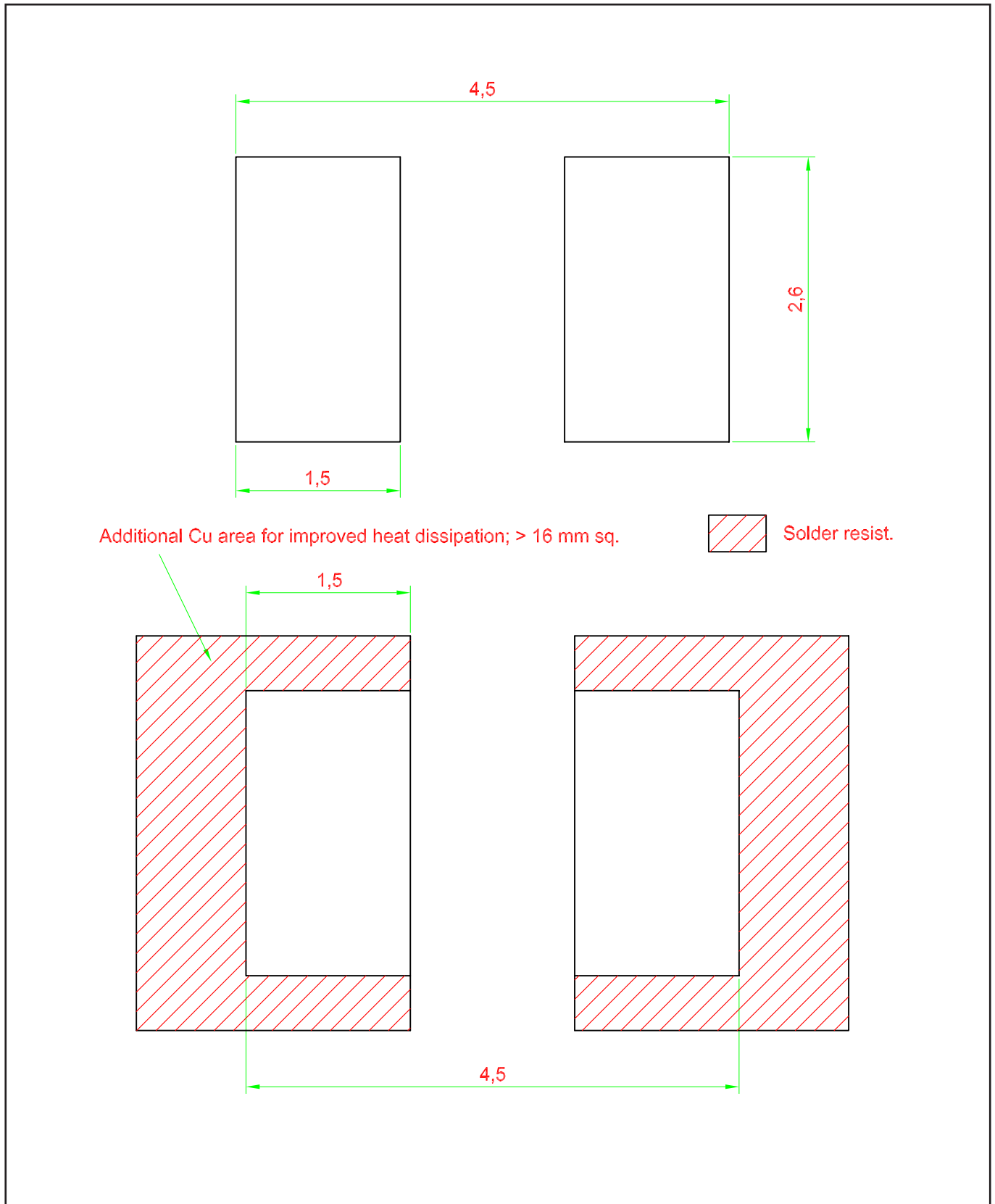
DomiLED™ • AllnGaP : DRH-MJS Package Outlines



Material

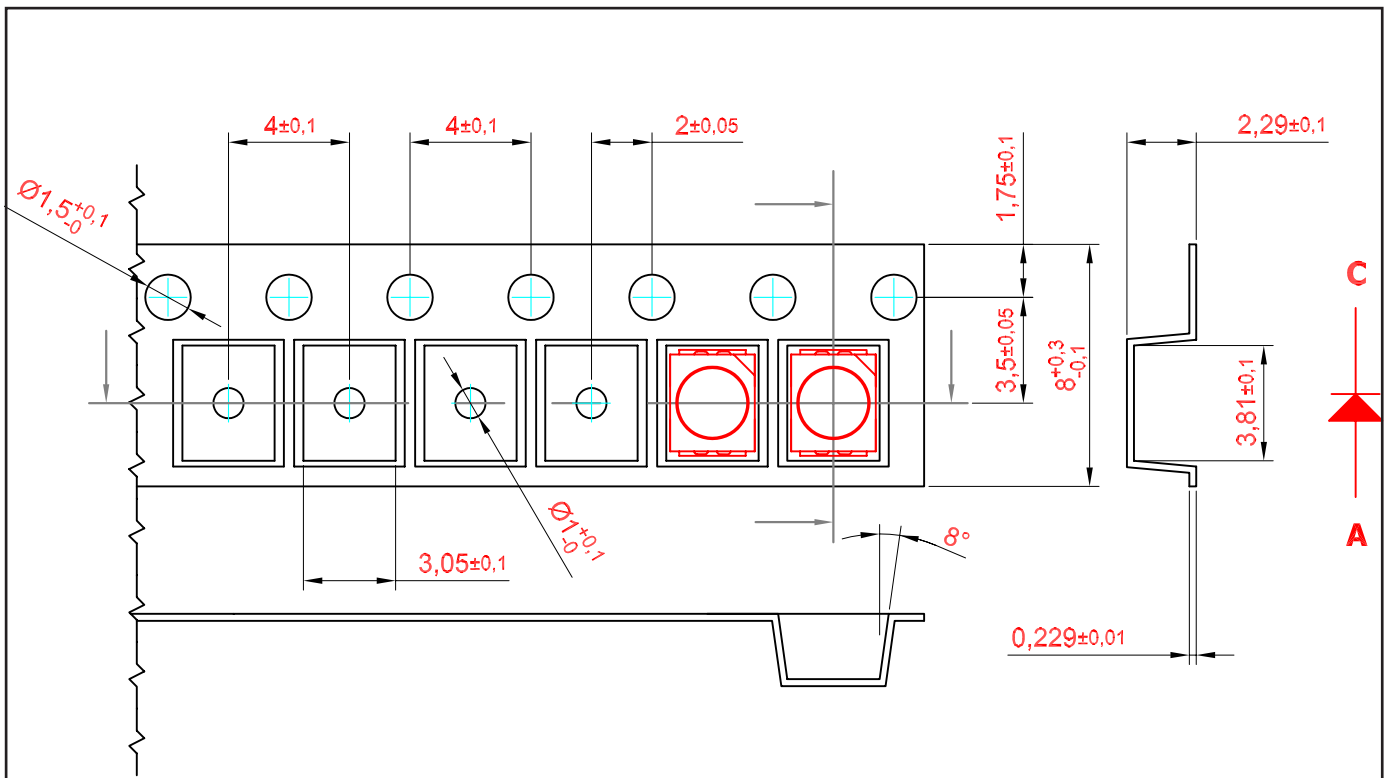
	Material
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn-Sn Plating

Recommended Solder Pad



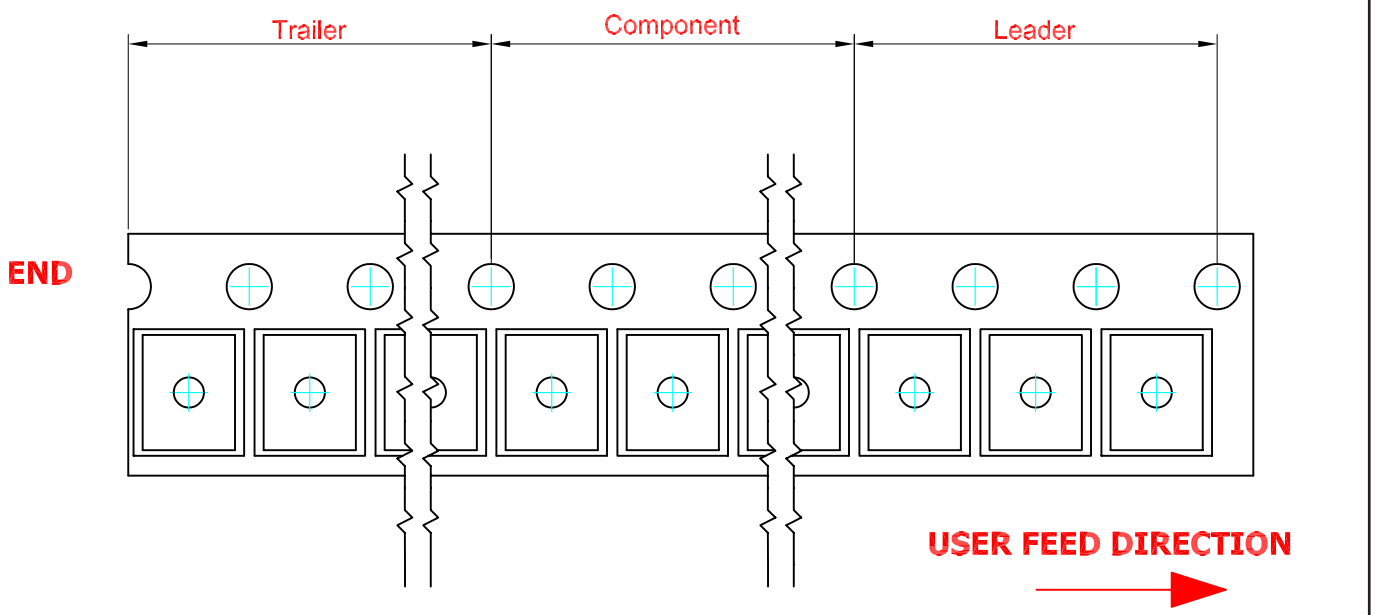
Taping and orientation

- Reels come in quantity of 2000 units.
- Reel diameter is 180 mm.

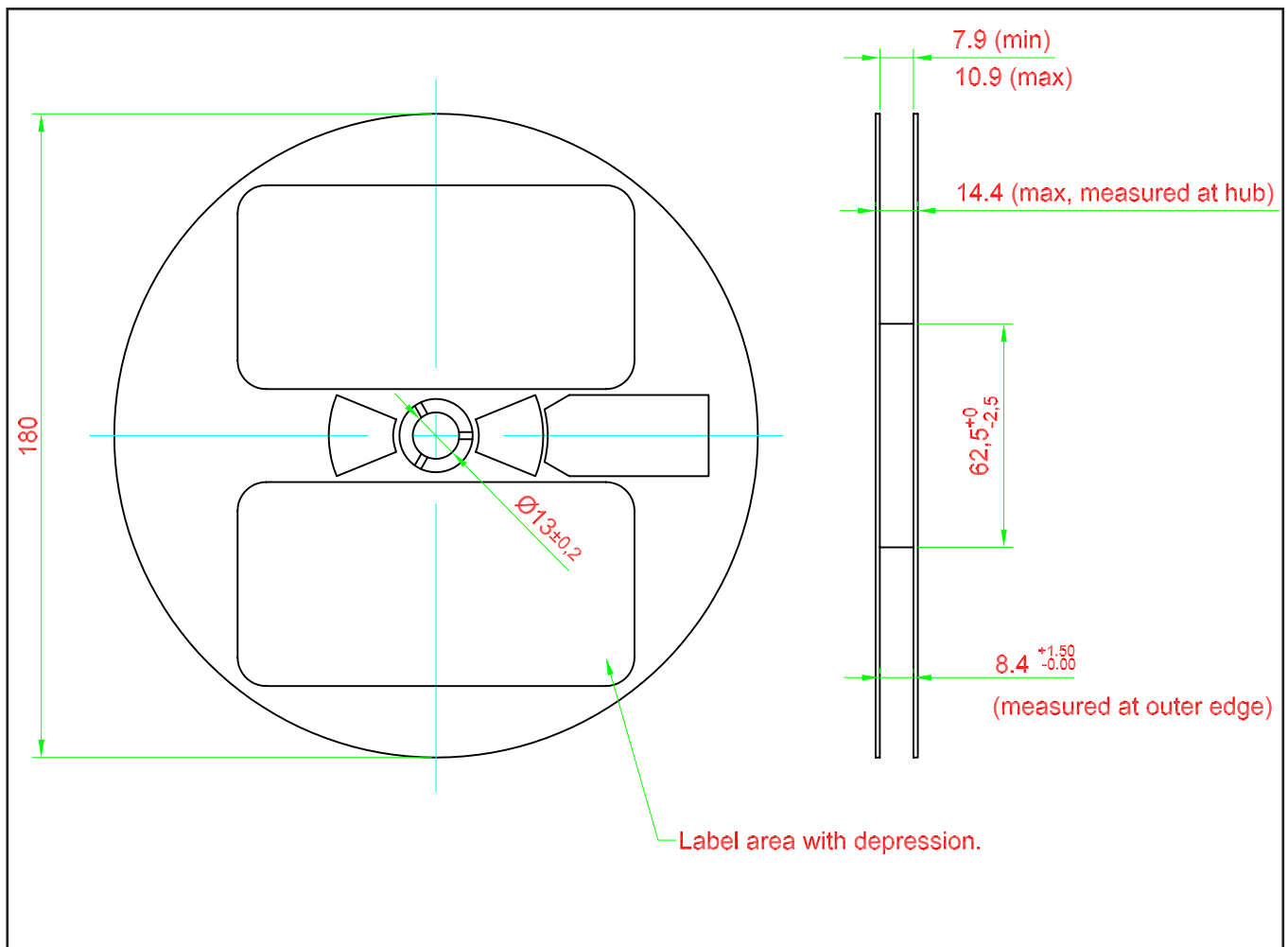


200 mm min. for $\varnothing 180$ reel.
 200 mm min. for $\varnothing 330$ reel.

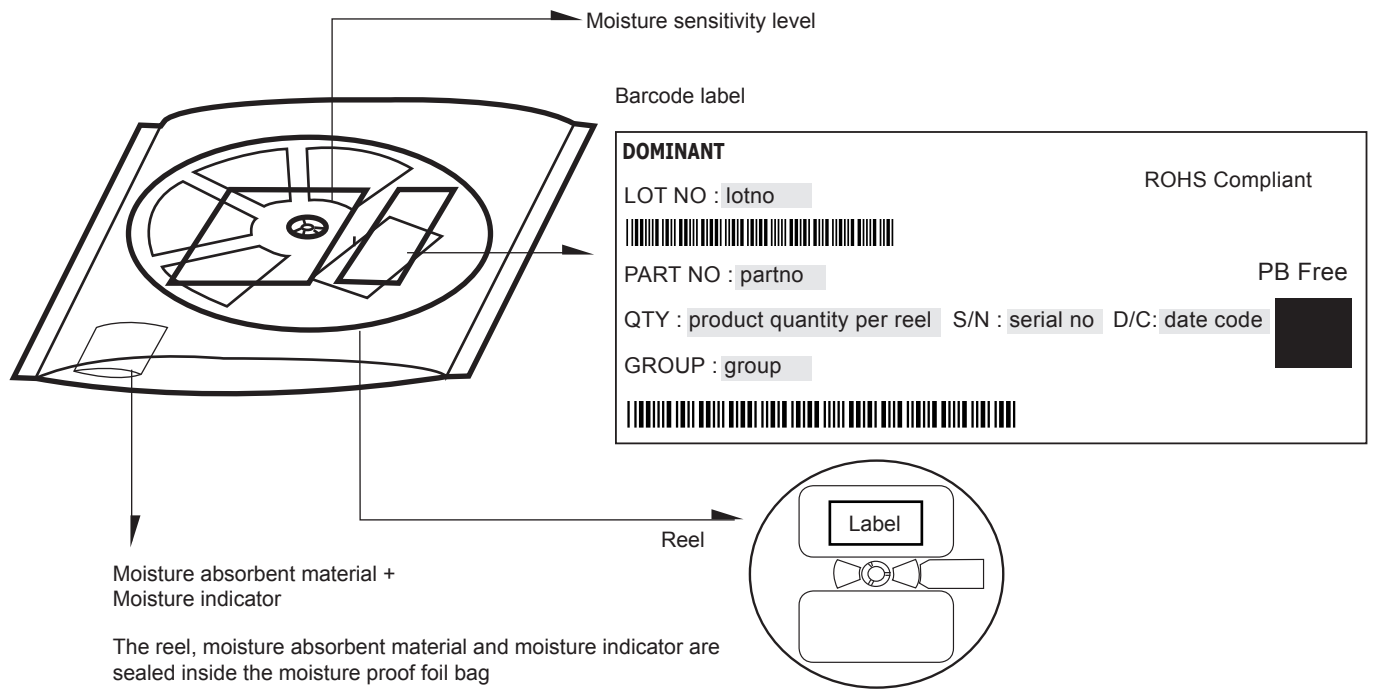
480 mm min. for $\varnothing 180$ reel.
 960 mm min. for $\varnothing 330$ reel.



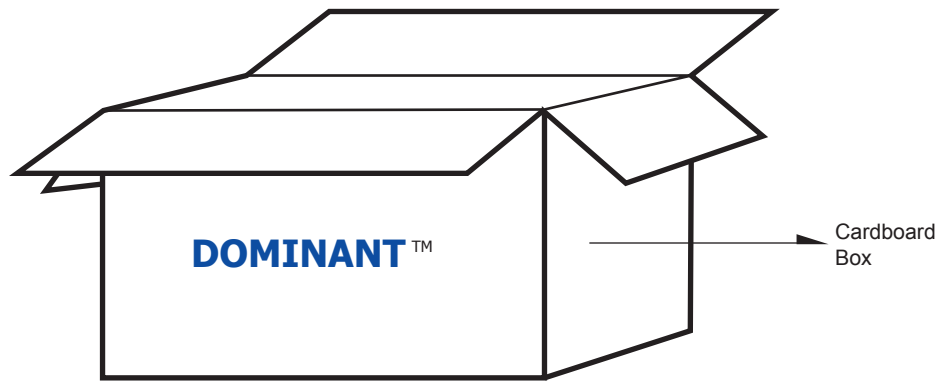
Packaging Specification



Packaging Specification



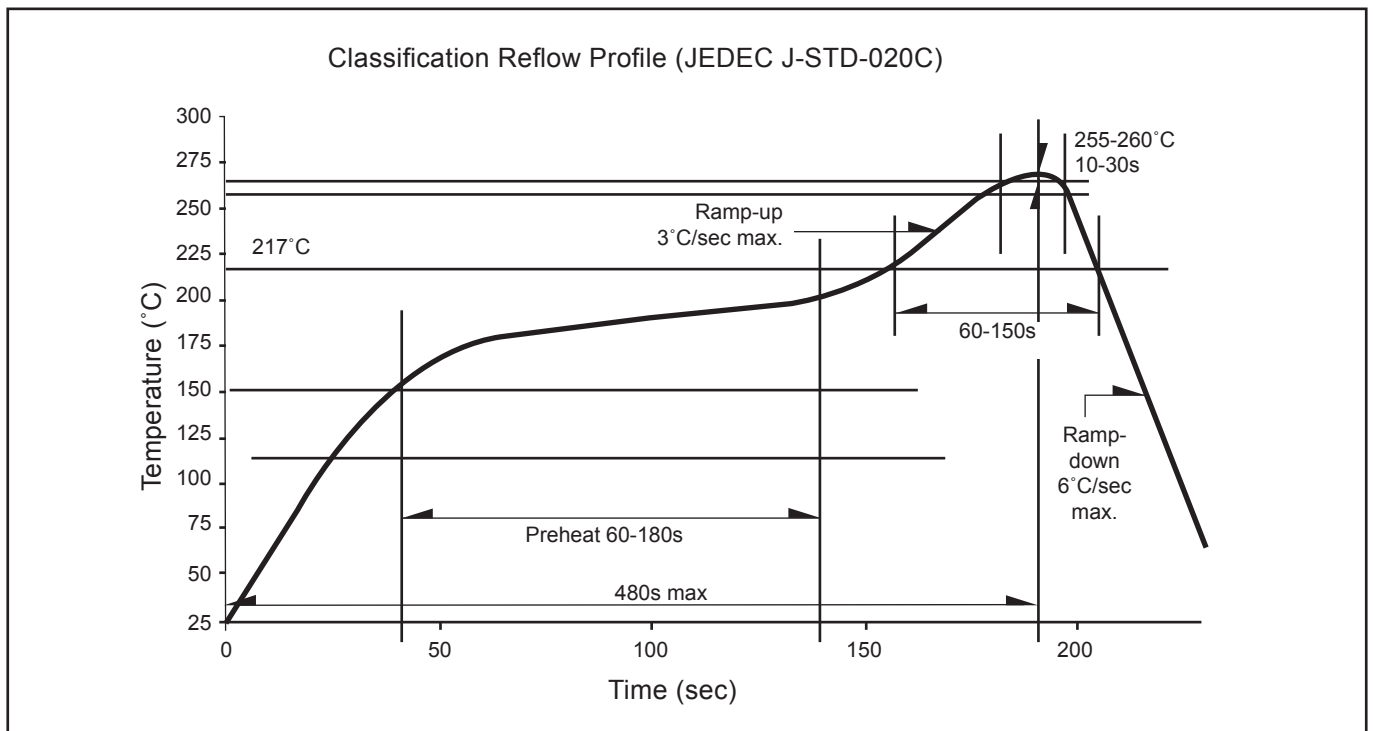
	Average 1pc DomiLED/Multi DomiLED	1 completed bag (2000pcs)
Weight (gram)	0.034	190 ± 10



For 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	30,000 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	192,000 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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