

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

- > Consumer Appliances: Backlighting illumination as in PDAs, LCD TV.
- > Communication: indicator and backlight in mobile phone, flash light.
- > Industrial: white goods (eg: Oven, microwave, etc.), light bar, illuminated advertising.



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ 2mA; IV (mcd)		
			Min.	Typ.	Max.
DDS-CRS-J2L1-1-I2	Super red, 632nm	120	5.6	9.0	14.0
DDO-CRS-LM2-1-I2	Orange, 605nm	120	11.2	18.0	28.5
● DDY-CRS-KL2-1-I2	Yellow, 587nm	120	7.2	11.2	18.0
DDY-CRS-LM2-1-I2	Yellow, 587nm	120	11.2	18.0	28.5

● Not for new design

NOTE

1. All part number above comes in a quantity of 2000 units per reel.
2. Luminous intensity is measured with an accuracy of $\pm 11\%$.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If = 2mA		Vr @ Ir = 10uA
	Typ. (V)	Max. (V)	Min. (V)
DDS, DDO, DDY	1.8	2.2	12

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

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	20	mA
Peak pulse current; (tp \leq 10 μ s, 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)	45	mW

Wavelength Grouping at Tj=25°C

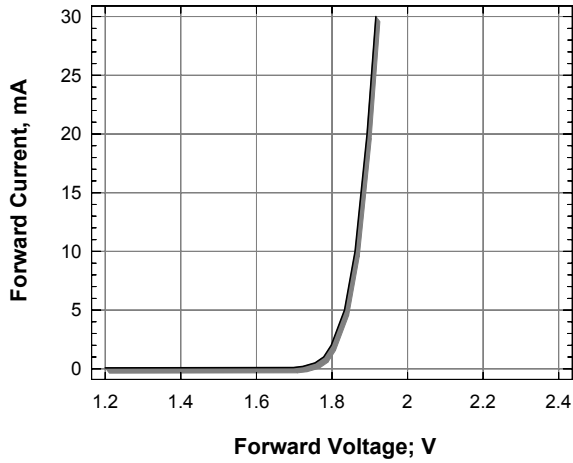
Color	Group	Wavelength distribution (nm)
DDS; Super-red	Full	625 - 640
DDO; Orange	Full	600 - 612
	W	600 - 603
	X	603 - 606
	Y	606 - 609
	Z	609 - 612
DDY; Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594

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

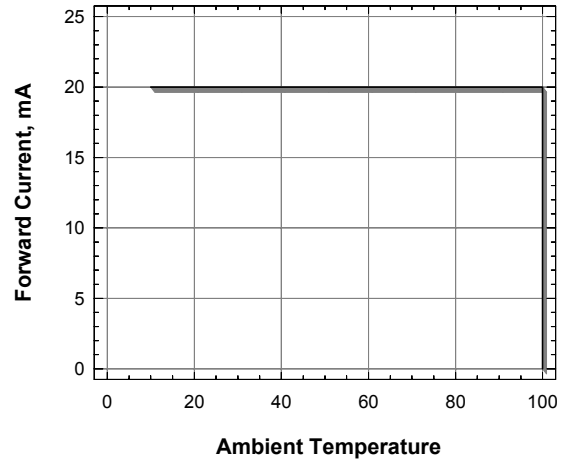
Luminous Intensity Group at Tj=25°C

Brightness Group	Luminous Intensity @ IV (mcd)
J2	5.6...7.2
K1	7.2...9.0
K2	9.0...11.2
L1	11.2...14.0
L2	14.0...18.0
M1	18.0...22.4
M2	22.4...28.5

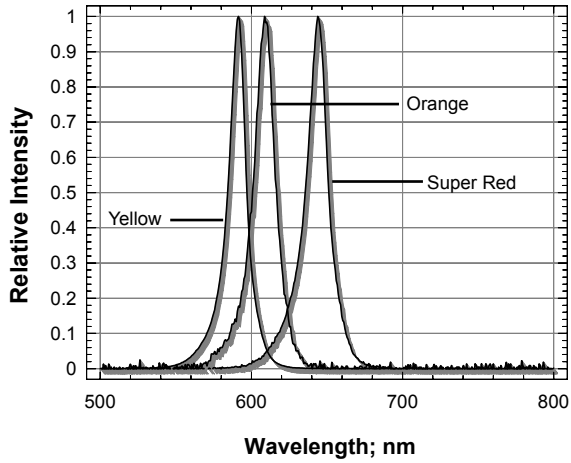
Forward Current Vs Forward Voltage



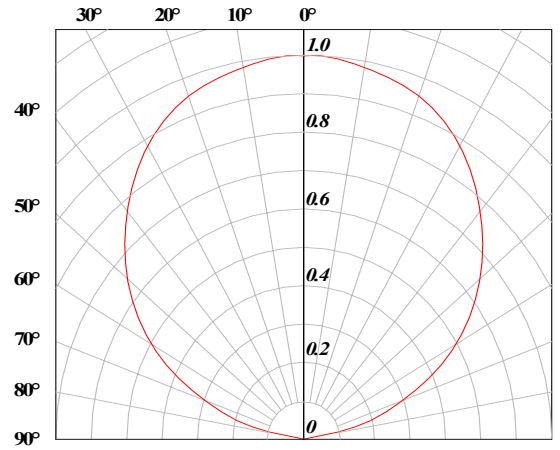
Forward Current Vs Ambient Temperature



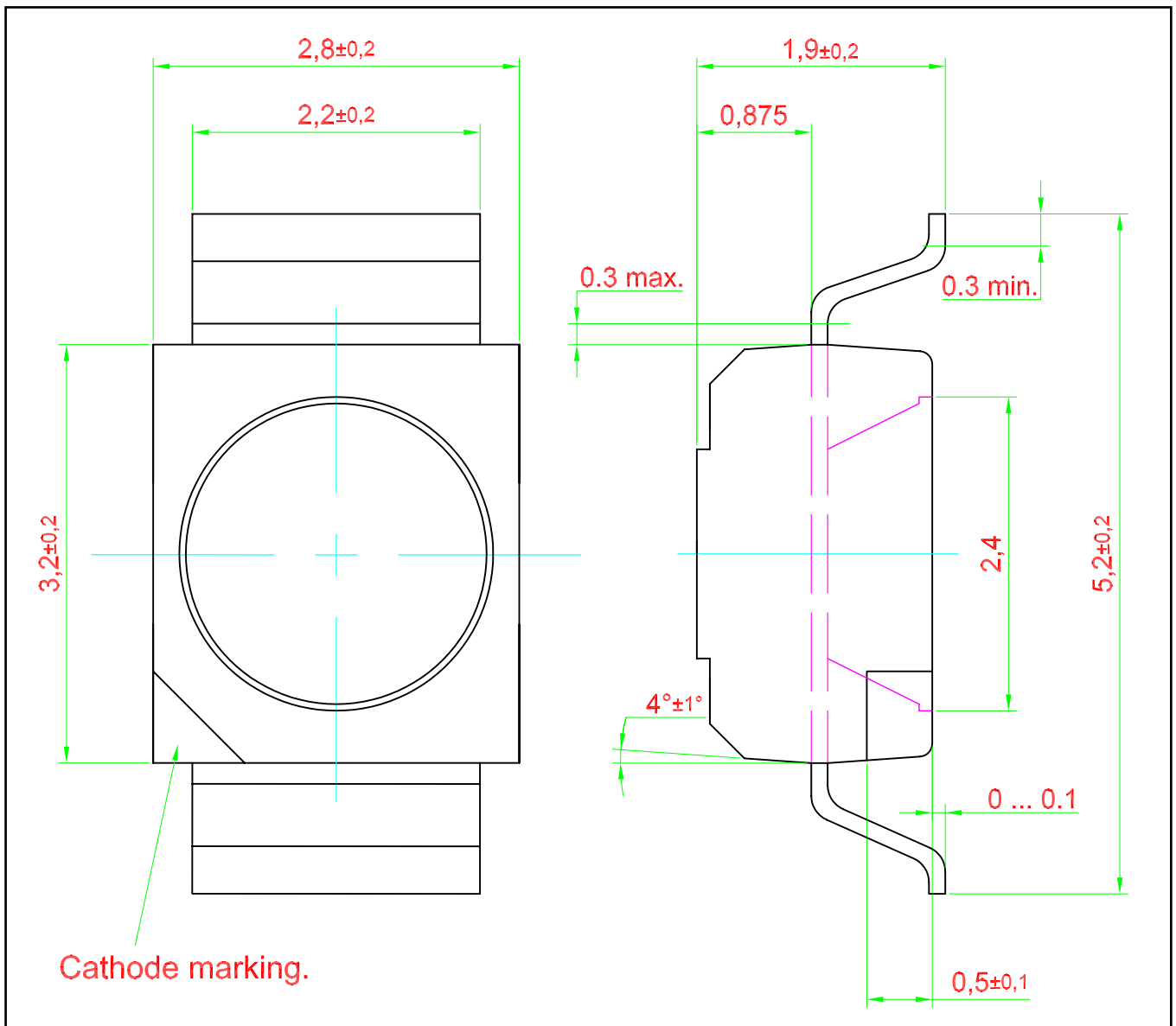
Relative Intensity Vs Wavelength



Radiation Pattern



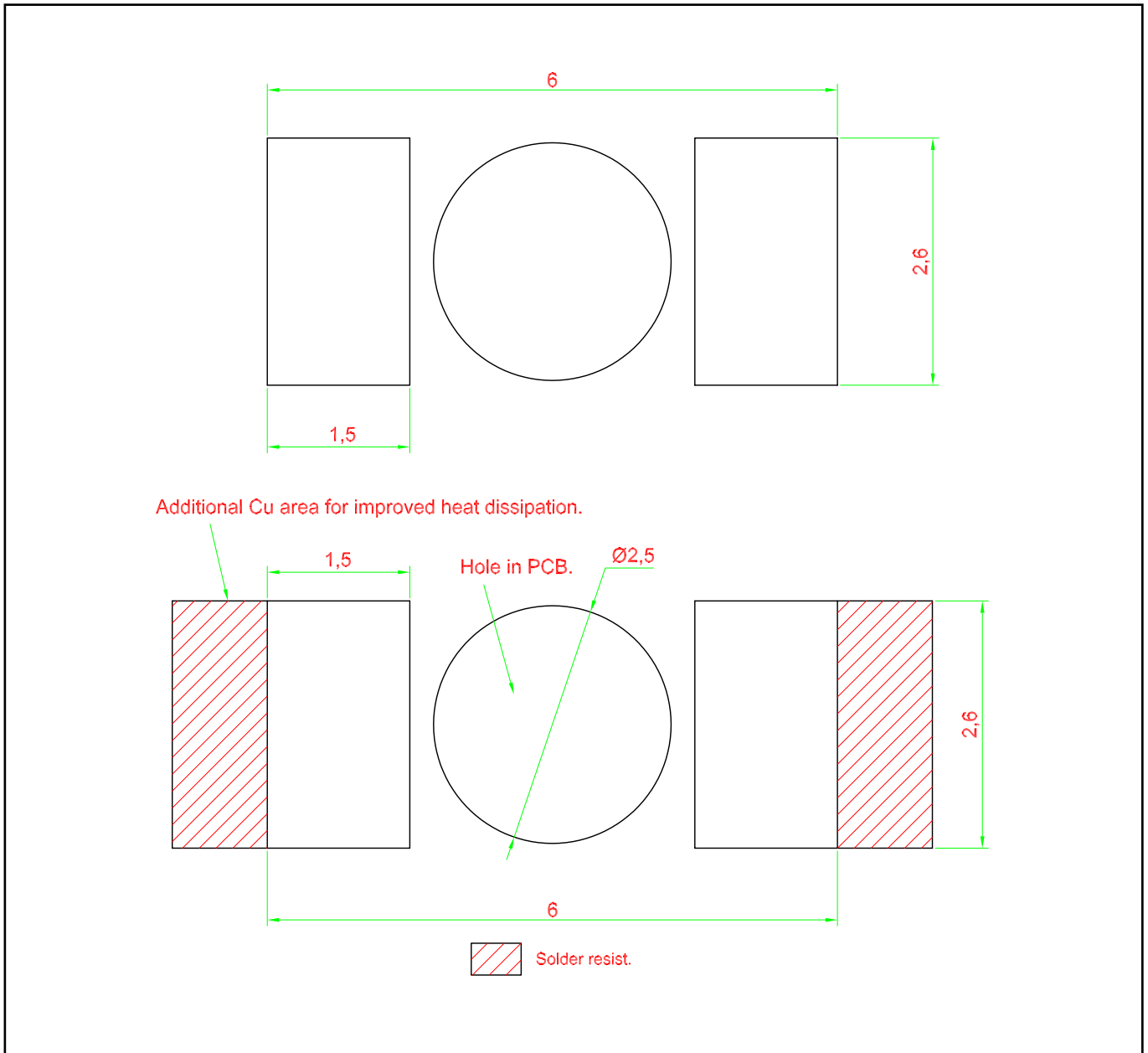
DomiLED™ • AllnGaP : DDx-xRS-I2 Package Outlines



Material

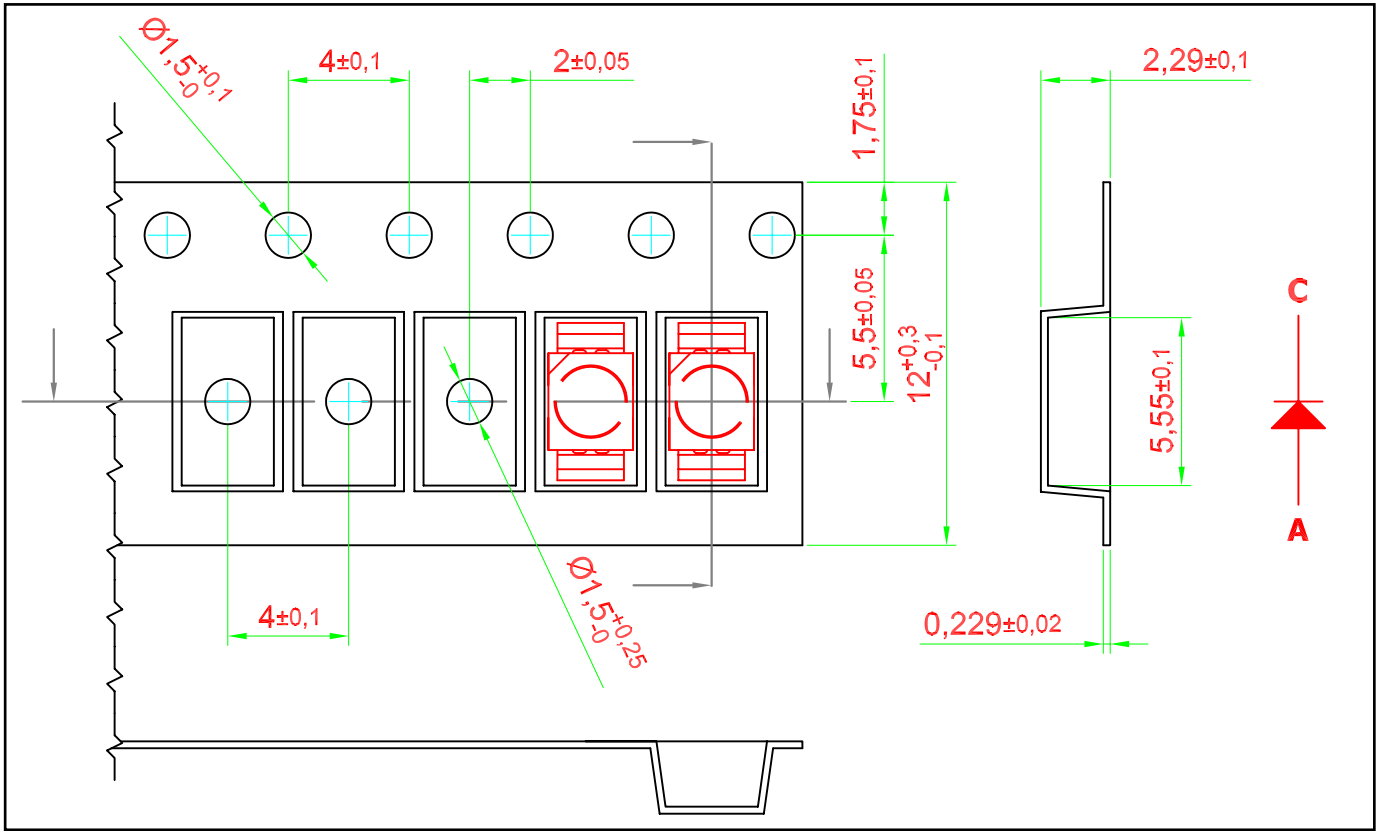
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn Plating

Recommended Solder Pad



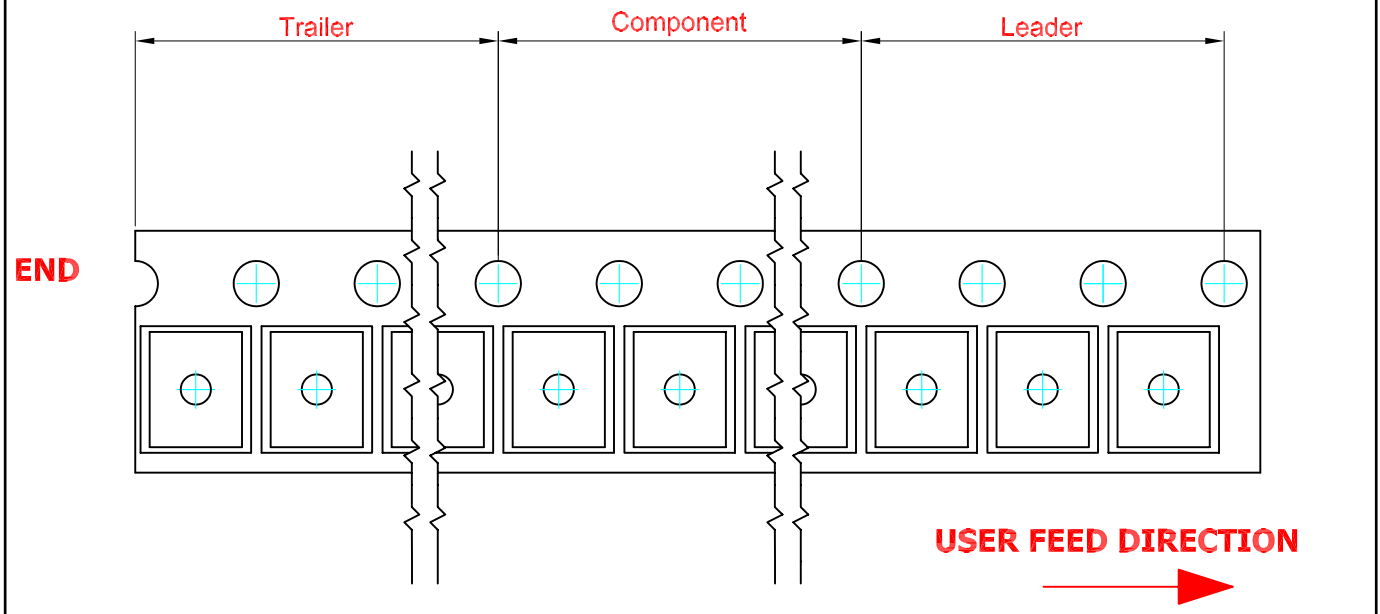
Taping and orientation

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

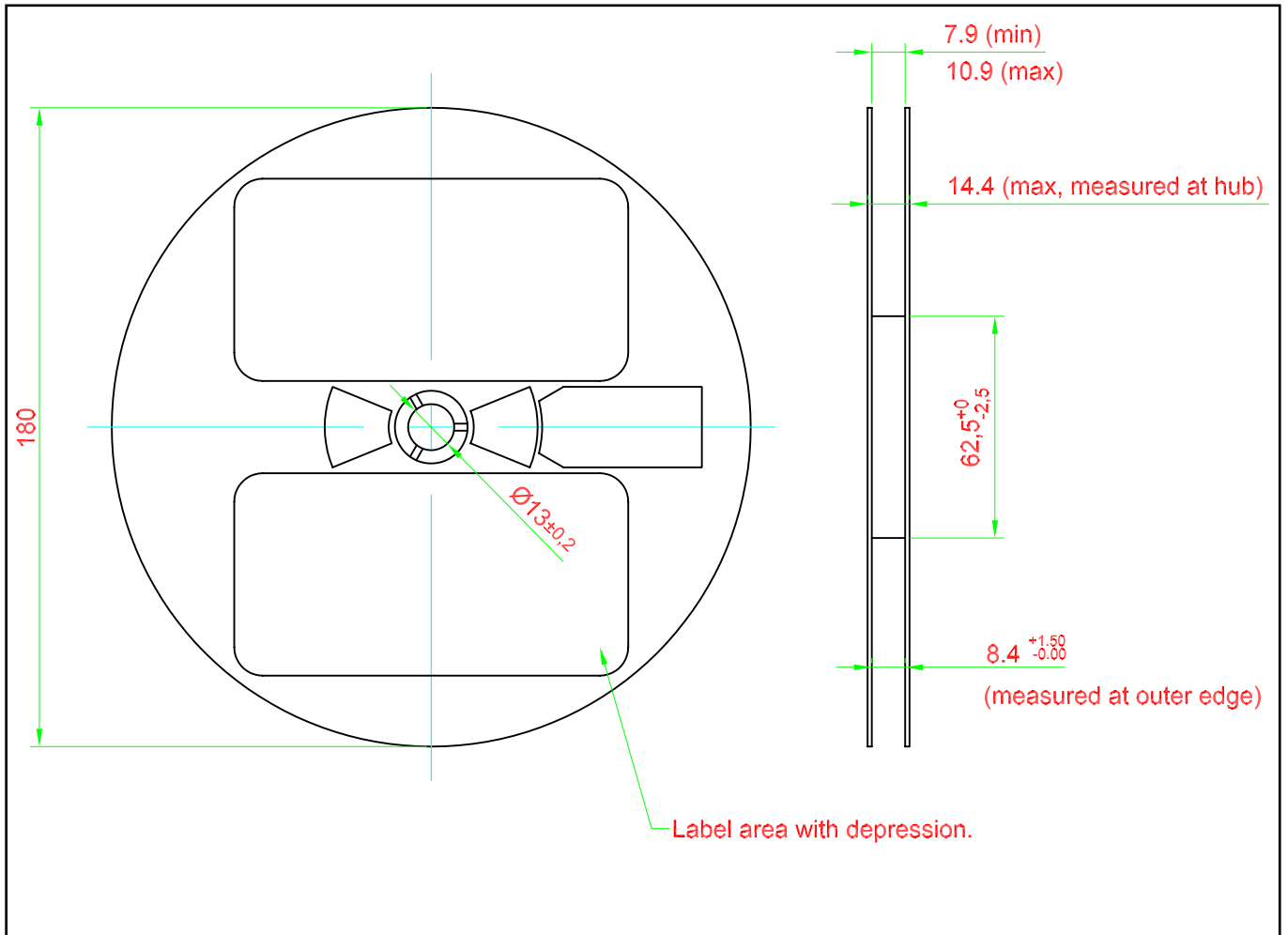


200 mm min. for $\varnothing 180$ reel.
200 mm min. for $\varnothing 330$ reel.

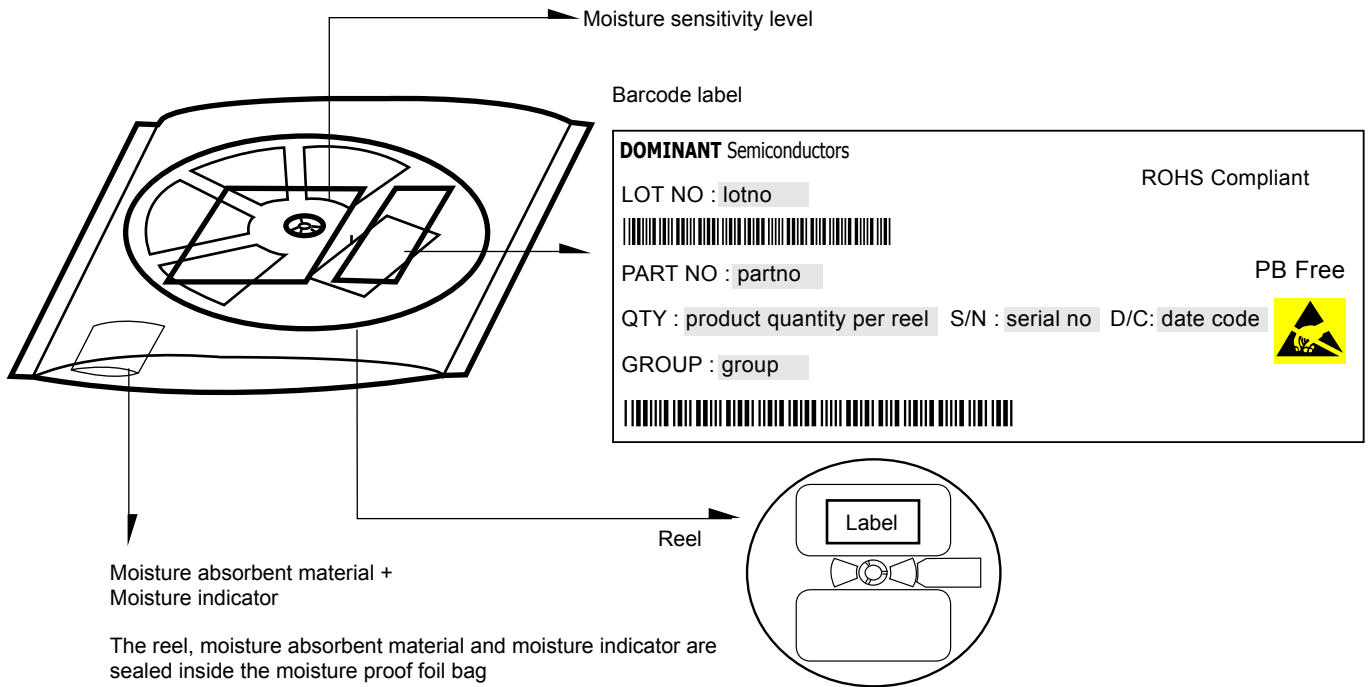
480 mm min. for $\varnothing 180$ reel.
960 mm min. for $\varnothing 330$ reel.



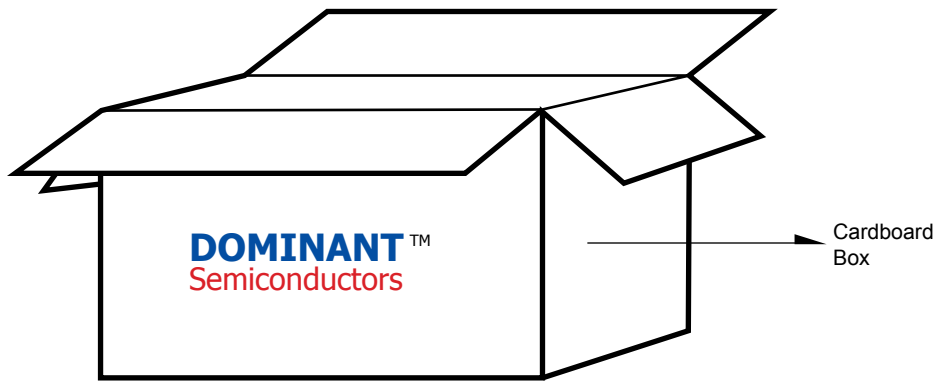
Packaging Specification



Packaging Specification



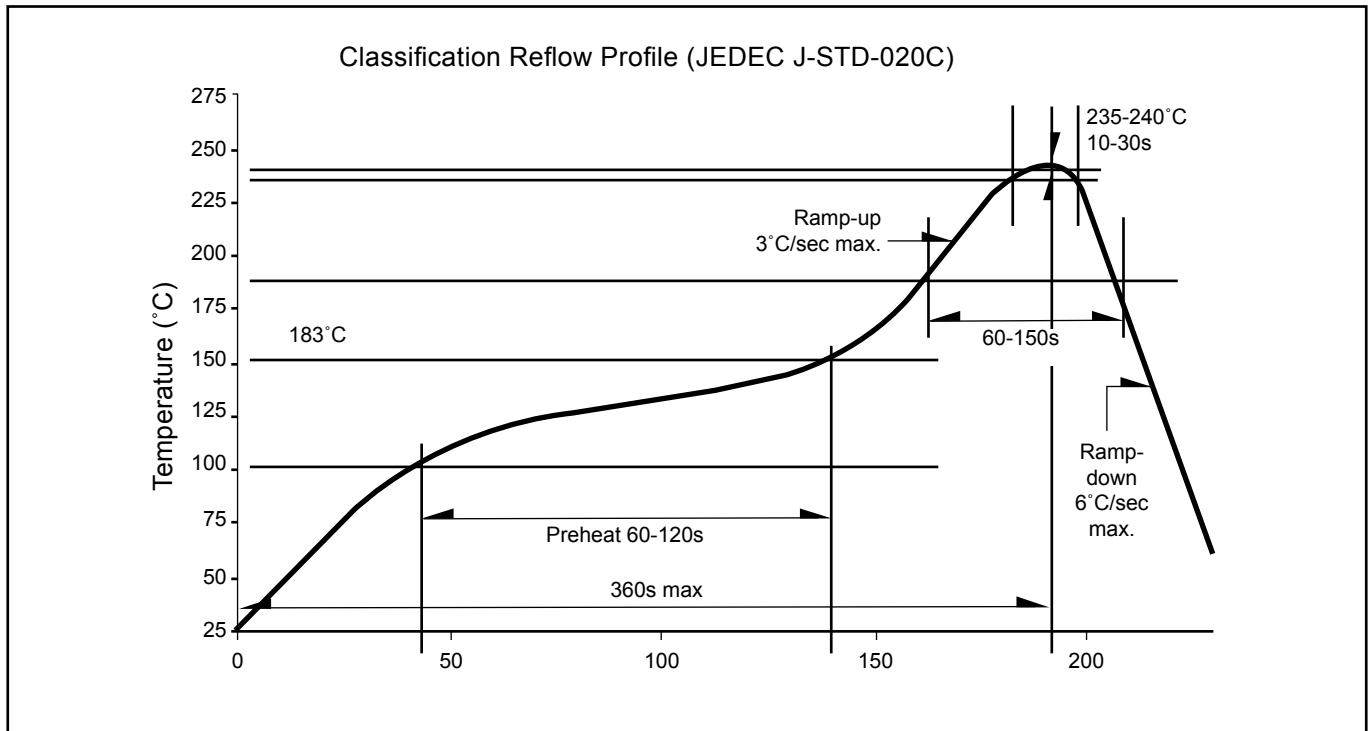
	Average 1pc DomiLED/Multi DomiLED	1 completed bag (2000pcs)
Weight (gram)	0.034	190 ± 10



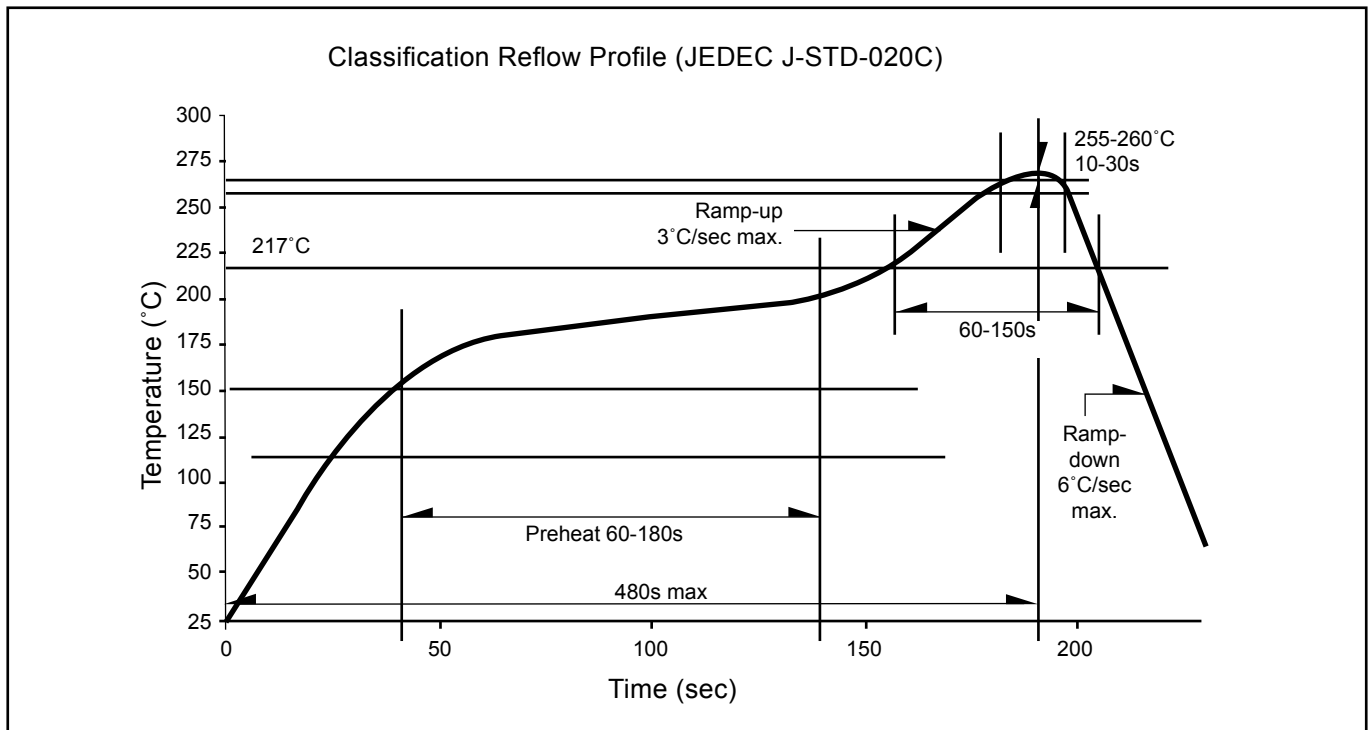
For DomiLED™

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	110,000 MAX

Recommended Sn-Pb IR-Reflow Soldering Profile



Recommended Pb-free Soldering Profile



Revision History

Page	Subjects	Date of Modification
-	Initial Release	09 Sep 2008
2	Not for new design: DDY-CRS-KL2-1-I2 Add new partno: DDY-CRS-LM2-1-I2	27 Jul 2009

NOTE

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About Us

DOMINANT Semiconductors 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 Semiconductors can be found on the Internet at <http://www.dominant-semi.com>.

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