

Multi DomiLED™

Synonymous with function and performance, the Multi 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 bi-color 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 IR reflow soldering.
- > Environmental friendly; RoHS compliance.

Applications:

- > Automotive: interior applications, eg: switches, telematics, climate control system, dashboard, etc.
- > Display: full color display video notice board.
- > Industrial: white goods (eg: Oven, microwave, etc.).



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 #1			Chip #2		
				Min.	Typ.	Max.	Min.	Typ.	Max.
DMRY-GJS-LM+LM-1	Red, 625nm	Yellow, 587nm	120	11.2	18.0	28.5	11.2	18.0	28.5
●DMRG-GJS-LM+LM-1	Red, 625nm	Green, 570nm	120	11.2	18.0	28.5	11.2	18.0	28.5
DMRG-GJS-LM+MN-1	Red, 625nm	Green, 570nm	120	11.2	18.0	28.5	18.0	28.5	45.0
●DMYG-GJS-LM+LM-1	Yellow, 587nm	Green, 570nm	120	11.2	18.0	28.5	11.2	18.0	28.5
DMYG-GJS-LM+MN-1	Yellow, 587nm	Green, 570nm	120	11.2	18.0	28.5	18.0	28.5	45.0

● Not for new design

NOTE

1. DMXX comes in a quantity of 2000 units per reel.
2. Luminous intensity is measured with an accuracy of $\pm 11\%$.
4. Half group binning for luminous intensity is also available upon request.

Electrical Characteristics at Tj=25°C

	Vf @ If = 20mA	
	Typ. (V)	Max. (V)
Red; Yellow; Green	2.2	2.5

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

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	30	mA
Peak pulse current; ($t_p \leq 10\mu\text{s}$, Duty cycle = 0.005)	1000	mA
Reverse voltage	5	V
ESD threshold (HBM)	2	KV
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 - 635
Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594
Green	Full	564.5 - 576.5
	W	564.5 - 567.5
	X	567.5 - 570.5
	Y	570.5 - 573.5
	Z	573.5 - 576.5

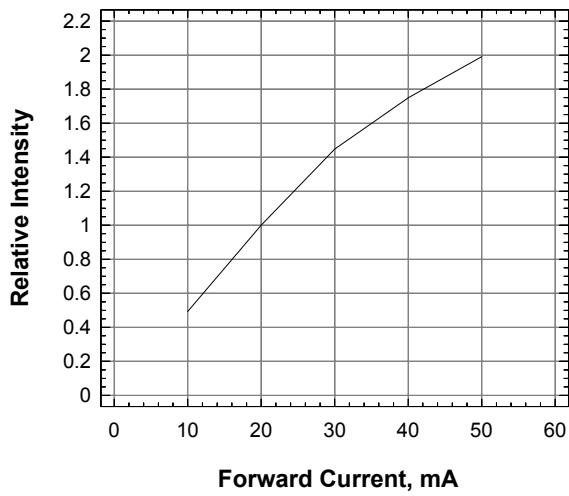
Dominant wavelength is measured with an accuracy of ± 1 nm.

Luminous Intensity Group at Tj=25°C

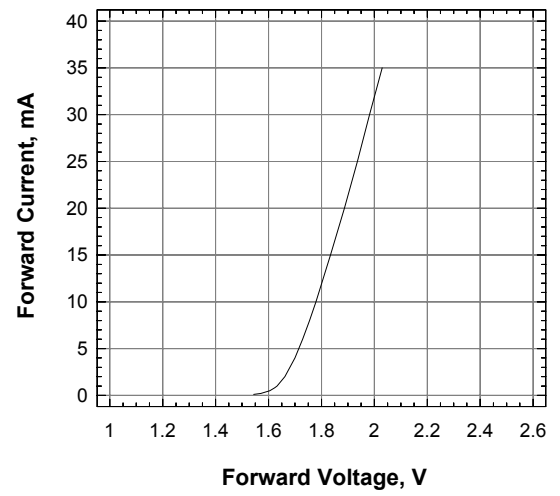
Brightness Group	Luminous Intensity @ IV (mcd)	
	Chip #1	Chip #2
LL	11.2...18.0	11.2...18.0
LM	11.2...18.0	18.0...28.5
LN	11.2...18.0	28.5...45.0
ML	18.0...28.5	11.2...18.0
MM	18.0...28.5	18.0...28.5
MN	18.0...28.5	28.5...45.0

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

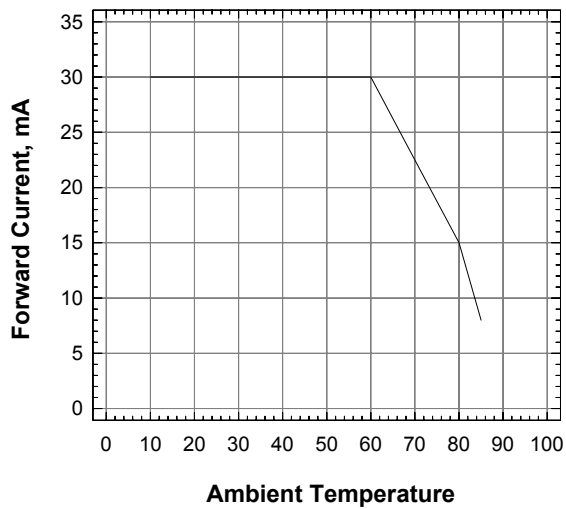
Relative Intensity Vs Forward Current



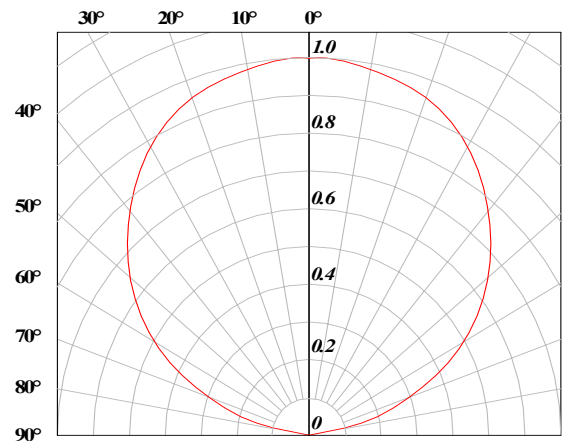
Forward Current Vs Forward Voltage



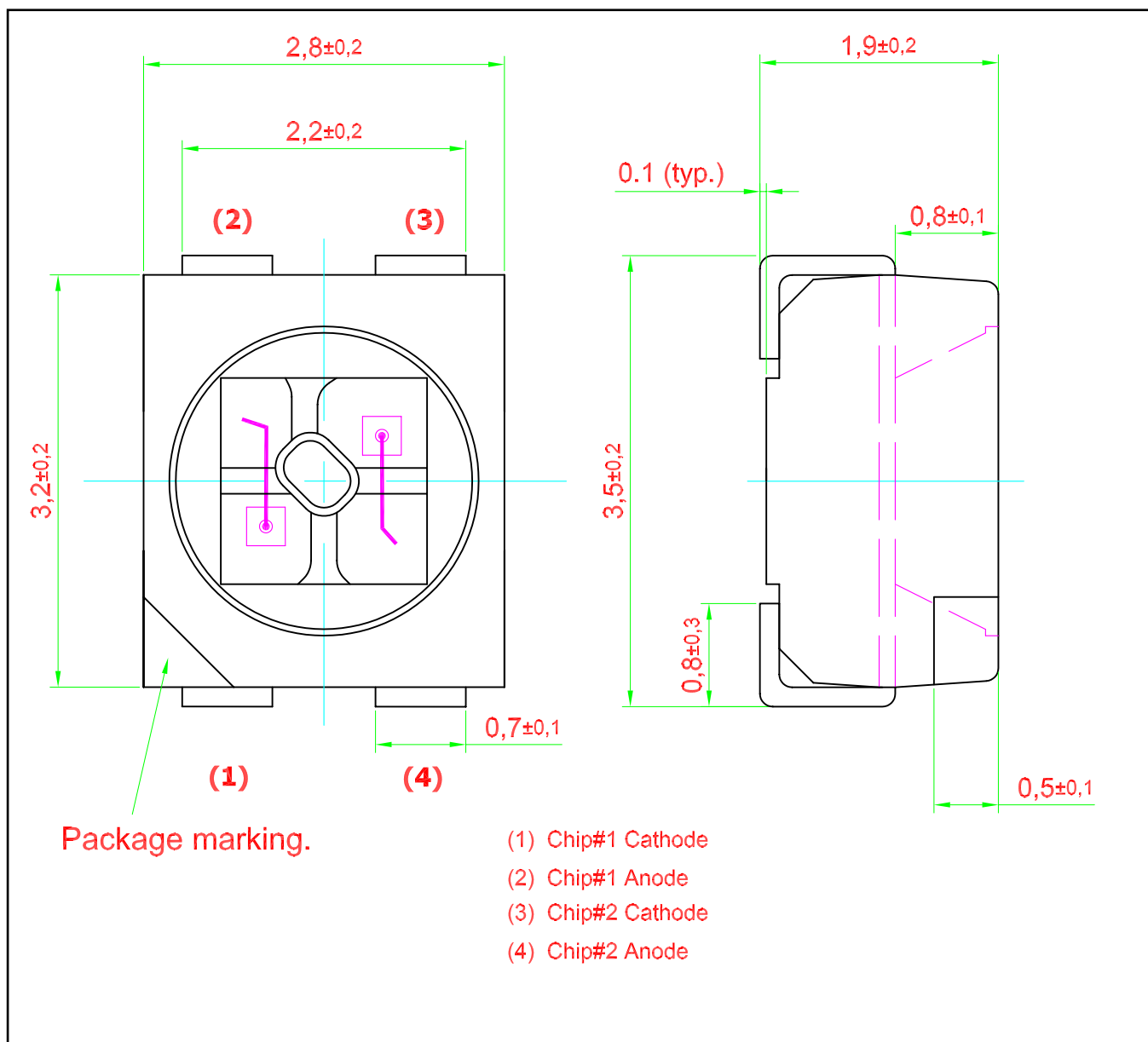
Maximum Current Vs Temperature



Radiation Pattern



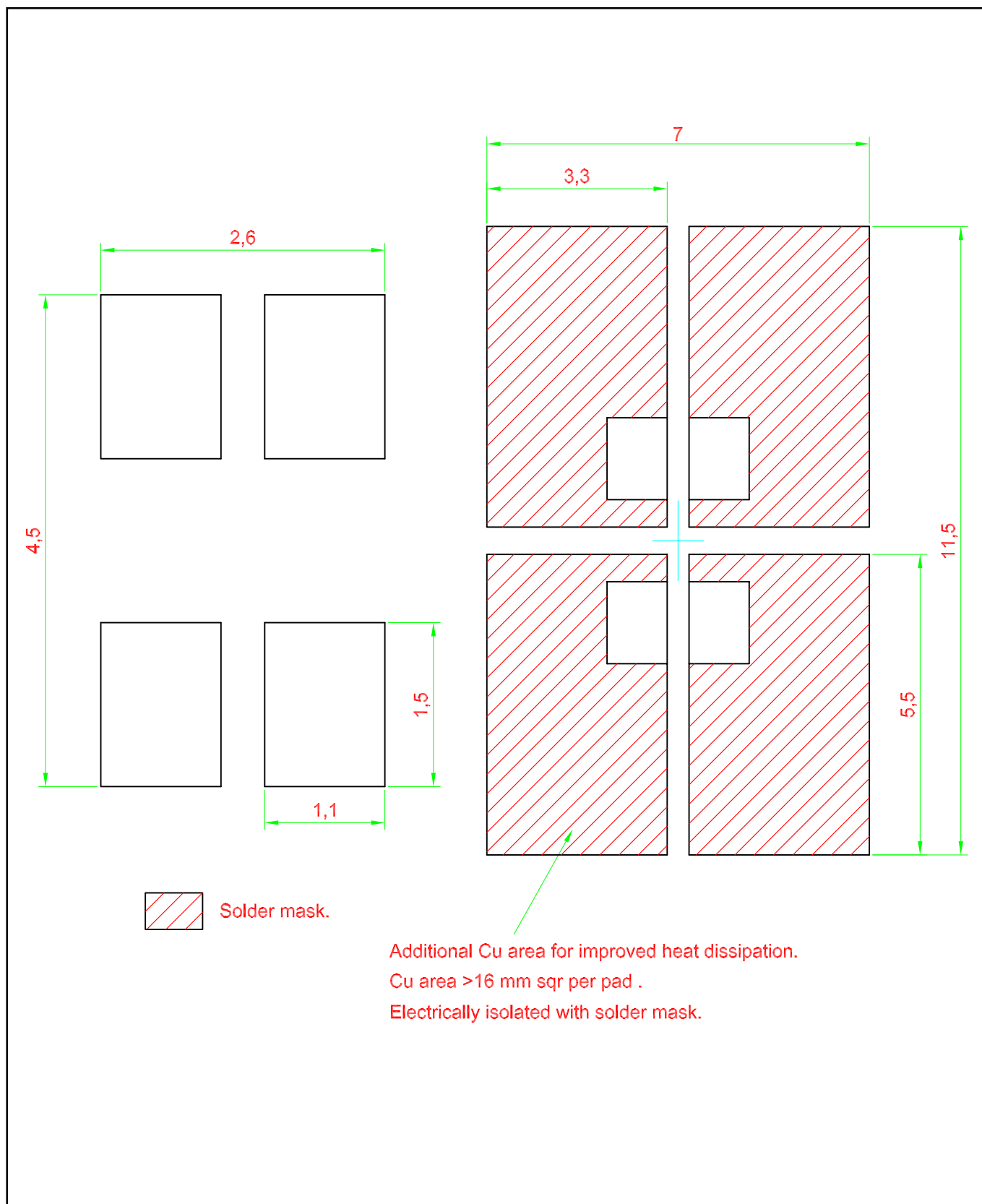
Multi DomiLED™ • GaP : Bi-Color Package Outlines



Material

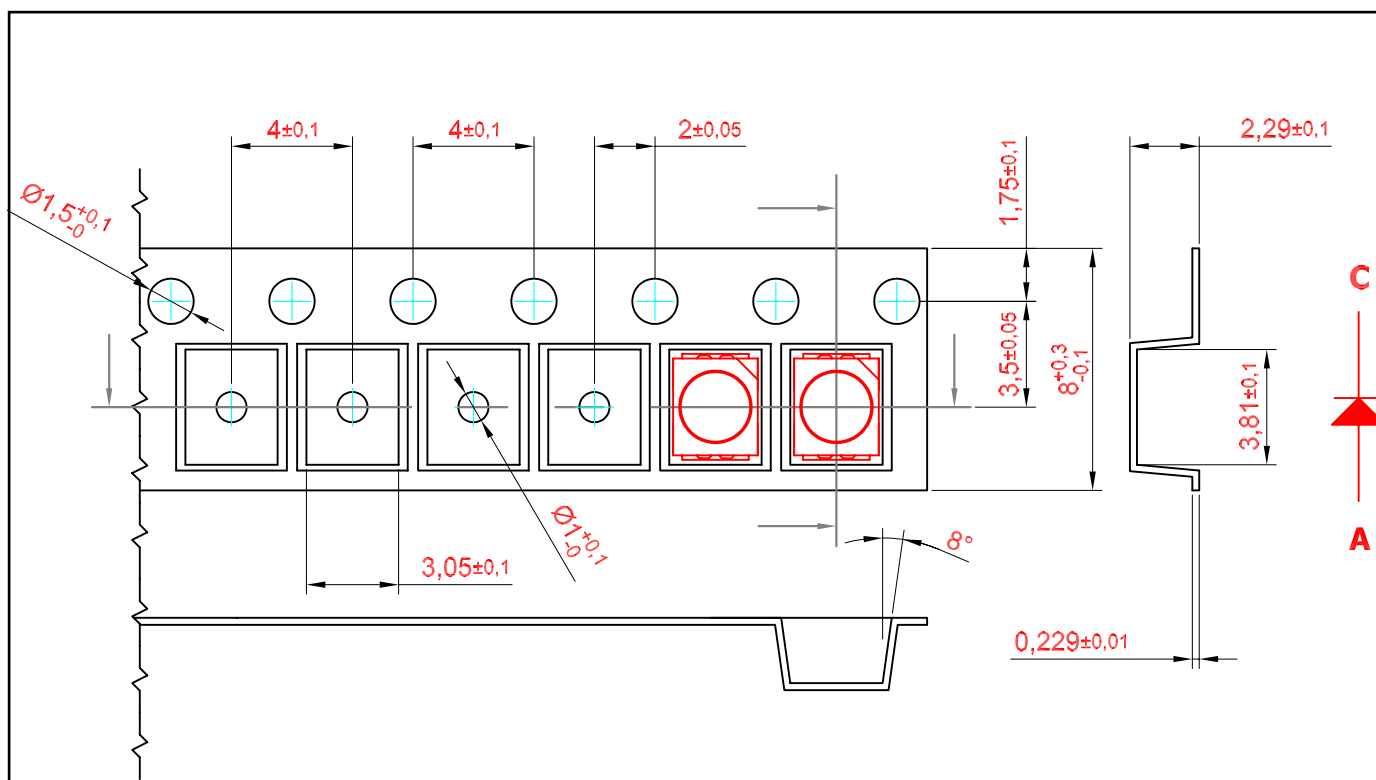
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn Plating

Recommended Solder Pad



Taping and orientation

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

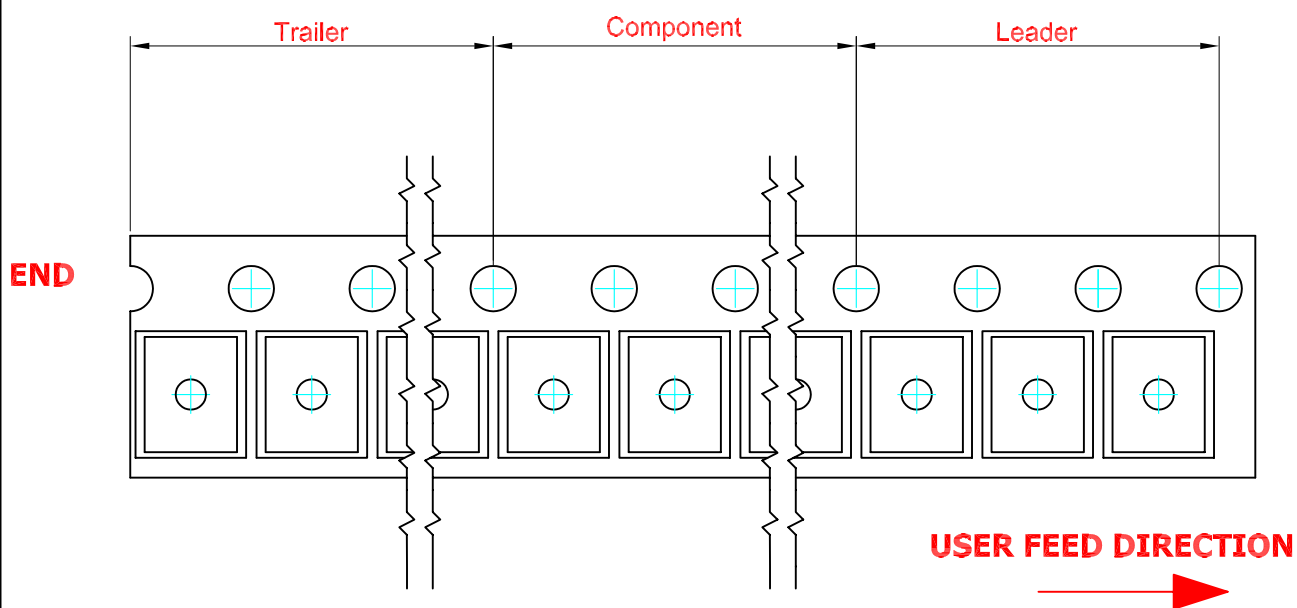


200 mm min. for $\varnothing 180$ reel.

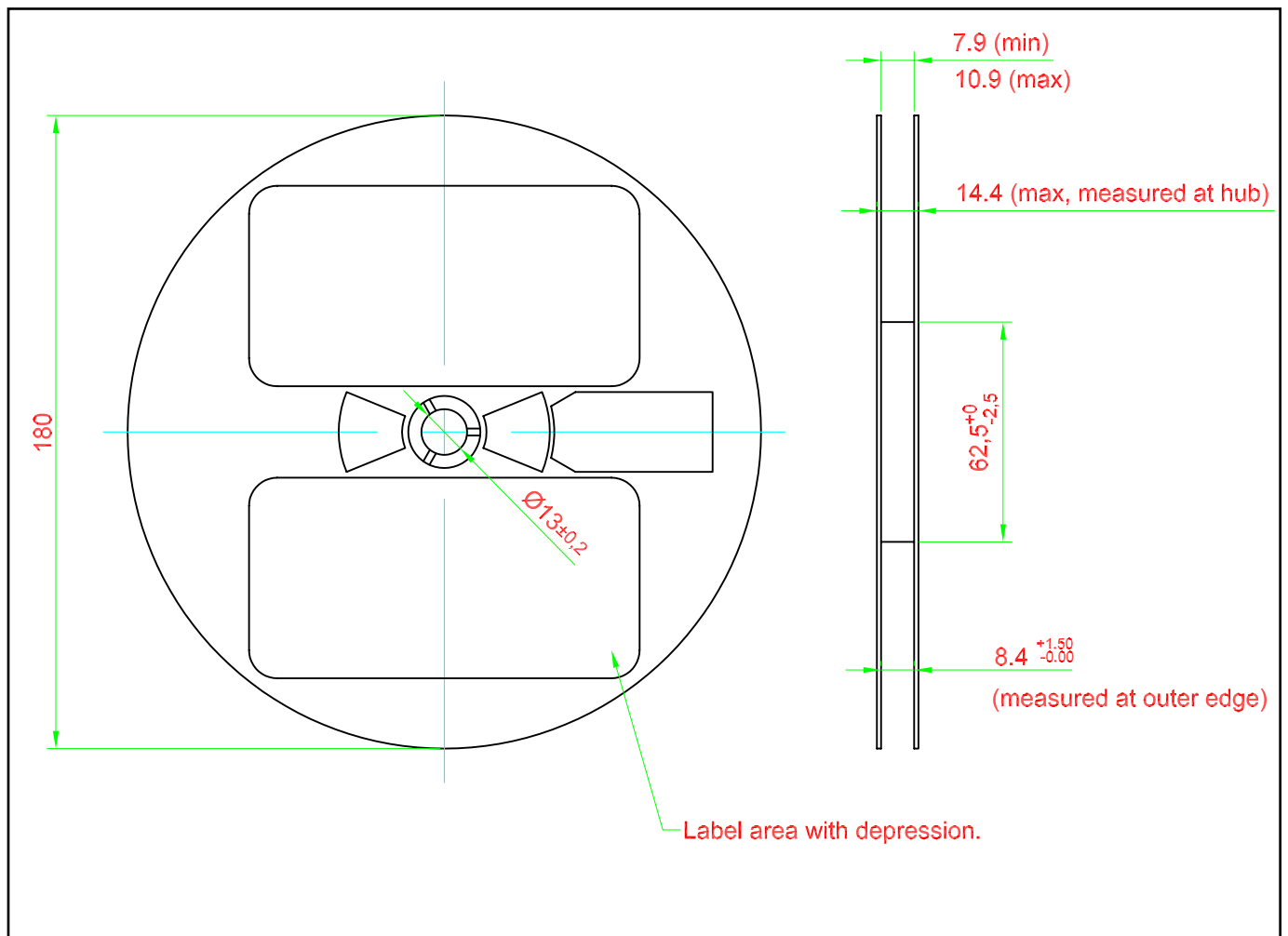
480 mm min. for $\varnothing 180$ reel.

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

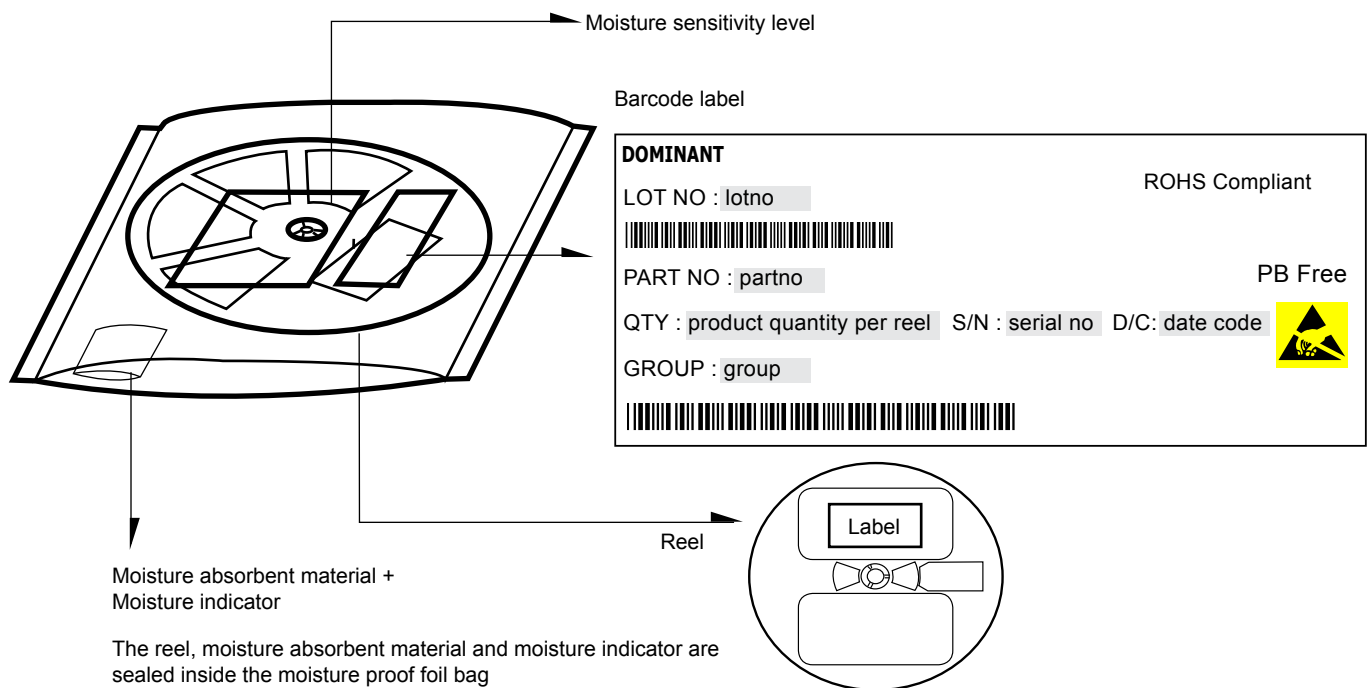
960 mm min. for $\varnothing 330$ reel.



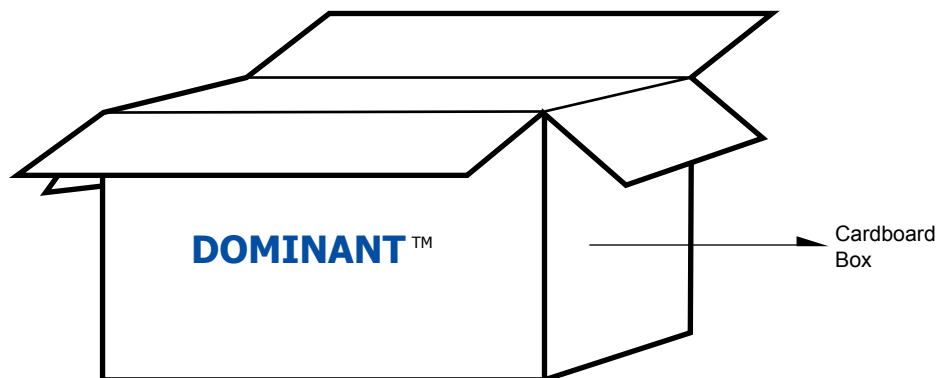
Packaging Specification



Packaging Specification



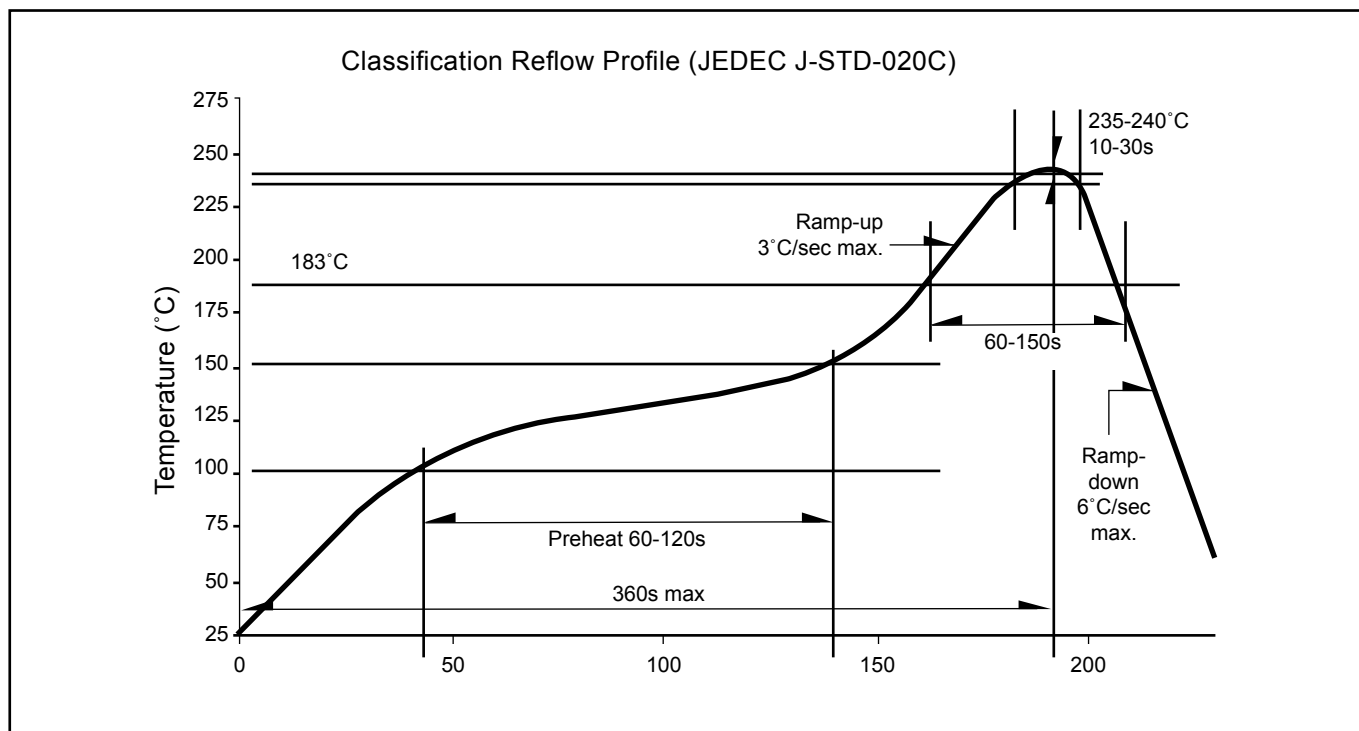
	Average 1pc DomiLED/Multi DomiLED	1 completed bag (2000pcs)
Weight (gram)	0.034	190 ± 10



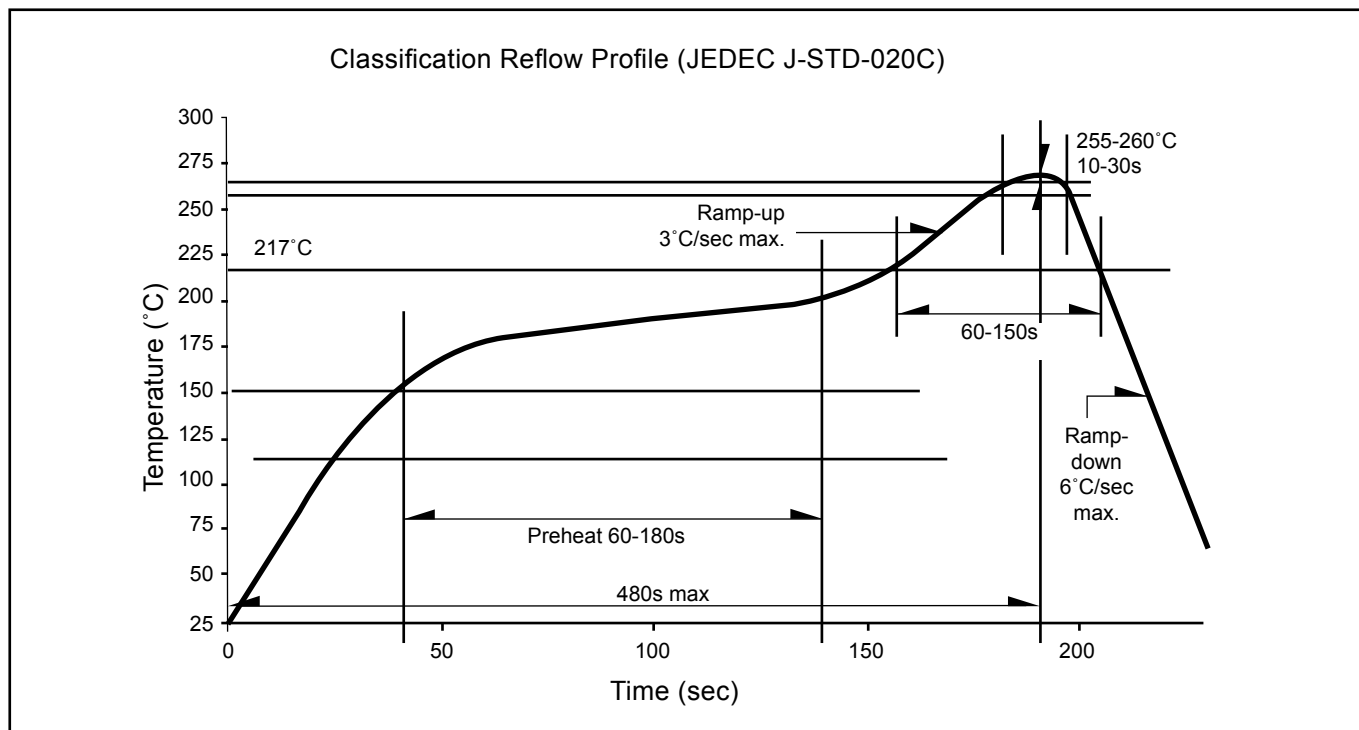
For Multi DomiLED™

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 Sn-Pb IR-Reflow Soldering Profile



Recommended Pb-free Soldering Profile



Revision History

Page	Subjects	Date of Modification
-	New Format	11 Aug 2006
-	Update company name	04 May 2010
-	Not for new design: DMRG-GJS-LM+LM-1, DMYG-GJS-LM+LM-1 Add new partno: DMRG-GJS-LM+MN-1, DMYG-GJS-LM+MN-1	21 Jul 2010

NOTE

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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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