

### **DomiLED**<sup>™</sup>

Synonymous with function and performance, the DomiLED<sup>™</sup> 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°	Luminous Intensity @ IF = 20mA IV (mcd)		
			Min.	Typ.	Max.
DRR-MJS-U2V-1	Red, 625nm	120	560.0	900.0	1125.0
DRA-MJS-VW1-1	Amber, 615nm	120	715.0	1125.0	1400.0
DRY-MJS-VW1-1	Yellow, 587nm	120	715.0	1125.0	1400.0

**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)
DRx-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

### Wavelength Grouping at Tj=25°C

Color	Group	Wavelength distribution (nm)
DRR; Red	Full	620 - 630
DRA; Amber	Full	610 - 621
	W	610 - 615
	X	615 - 621
DRY; Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594

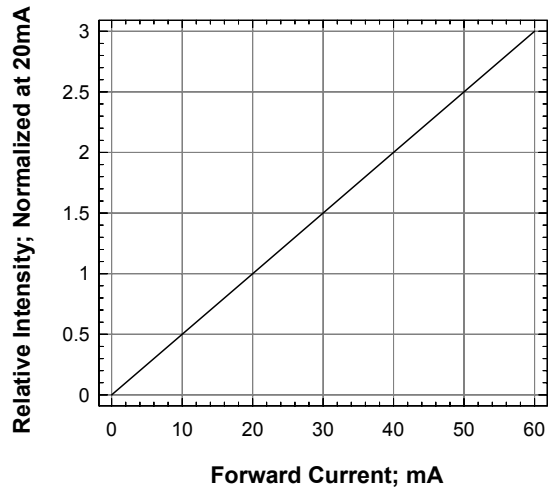
Dominant wavelength is measured with an accuracy of  $\pm 1$  nm.

### Luminous Intensity Group at Tj=25°C

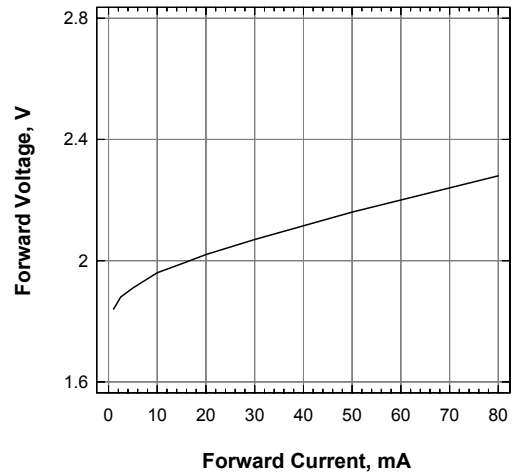
Brightness Group	Luminous Intensity @ IV (mcd)
U2	560.0...715.0
V1	715.0...900.0
V2	900.0...1125.0
W1	1125.0...1400.0

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

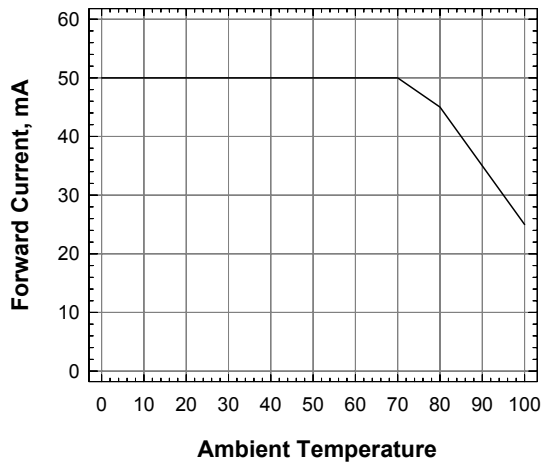
**Relative Intensity Vs Forward Current**



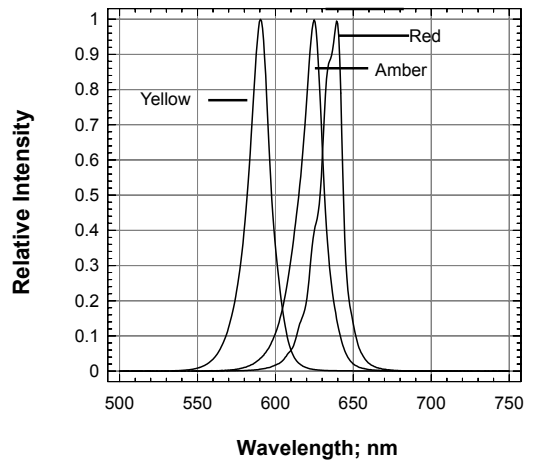
**Forward Voltage Vs Forward Current**



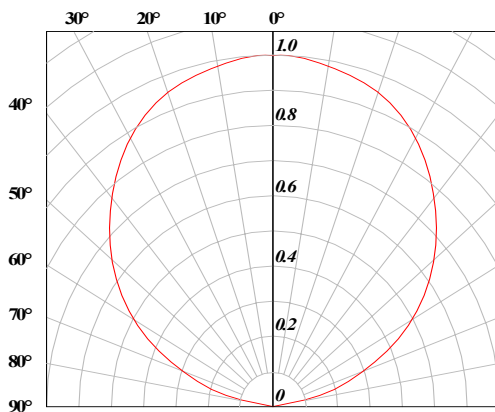
**Maximum Current Vs Ambient Temperature**



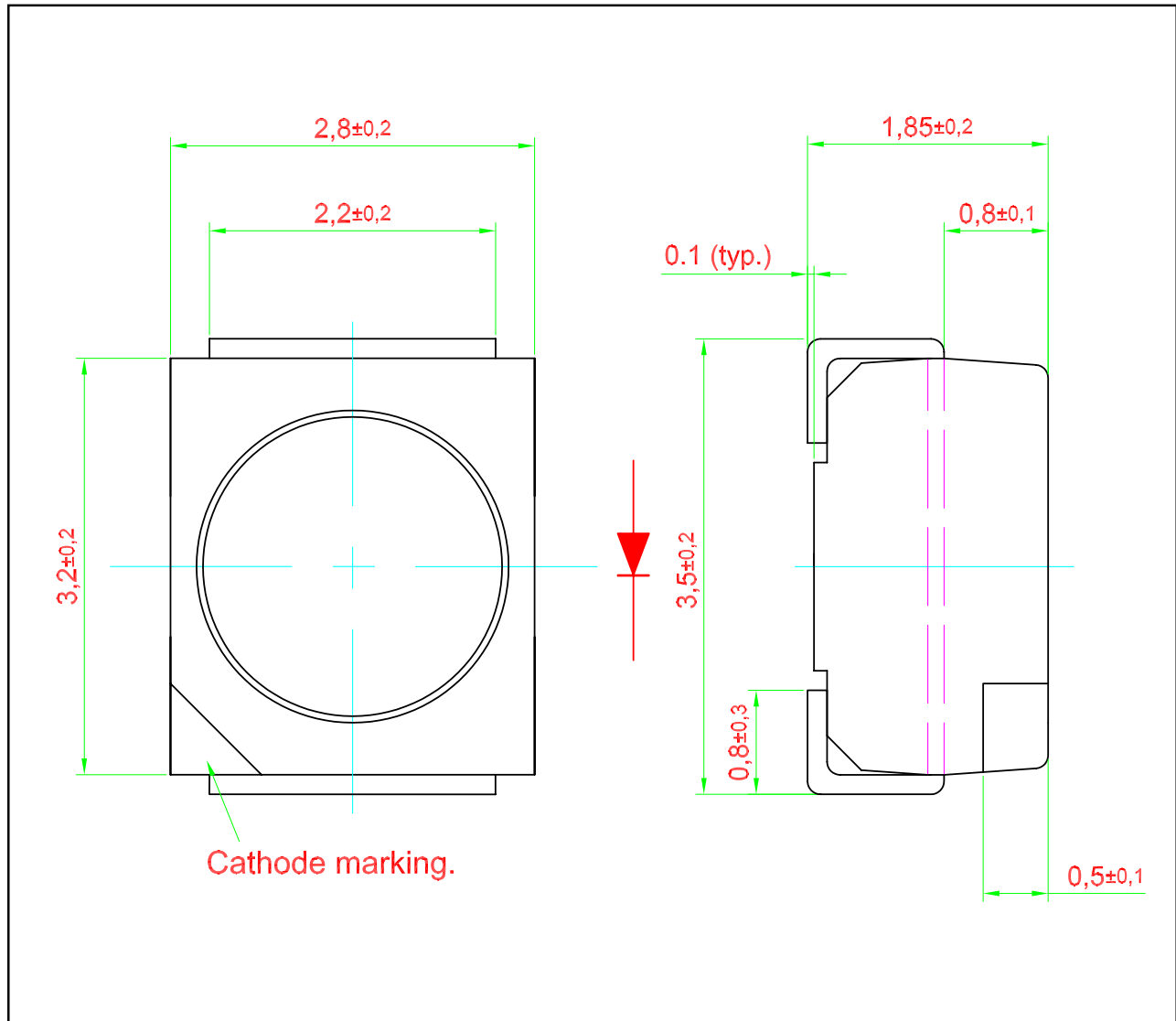
**Relative Intensity Vs Wavelength**



**Radiation Pattern**



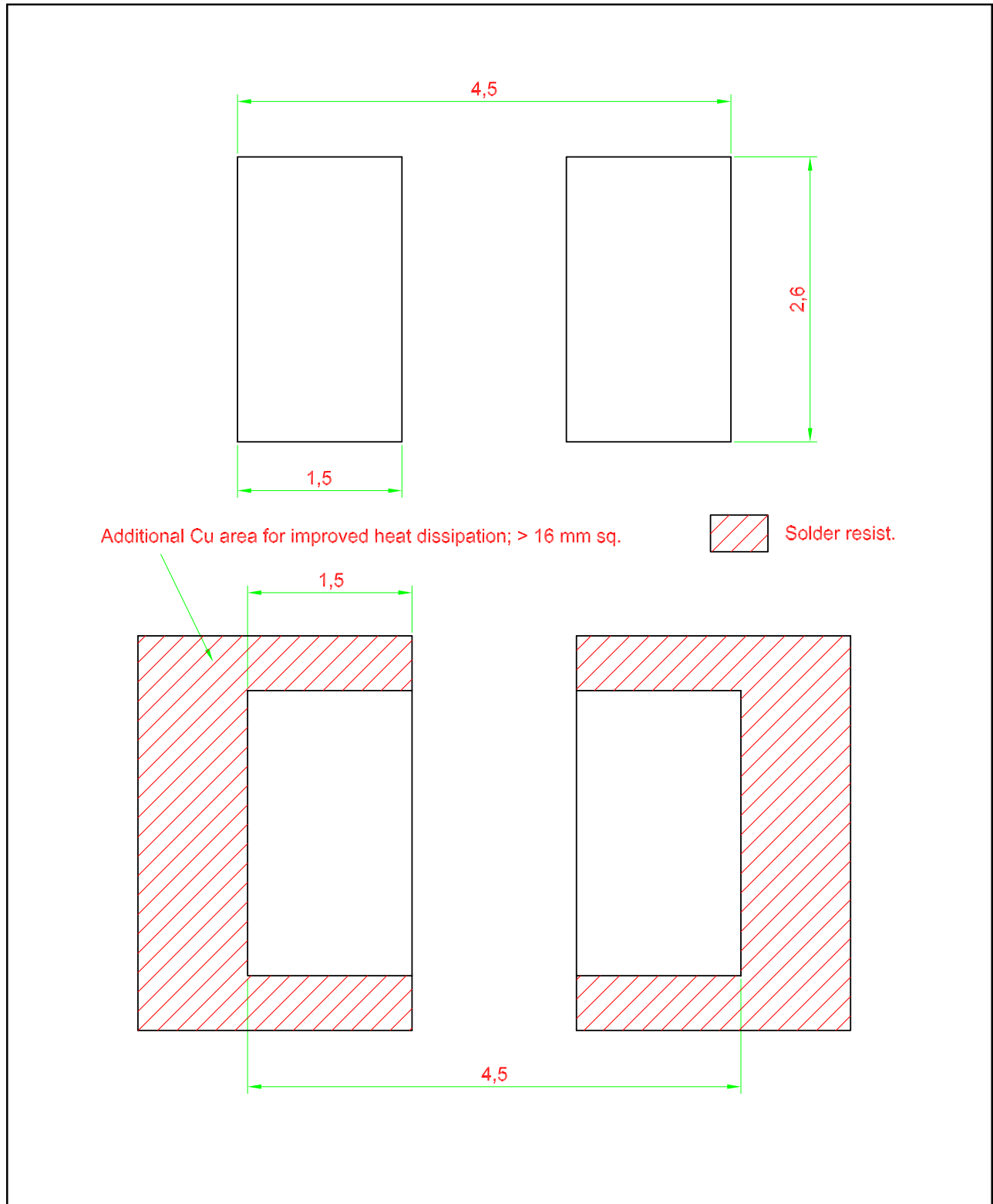
**DomiLED™ • AllnGaP : DRx-MJS Package Outlines**



**Material**

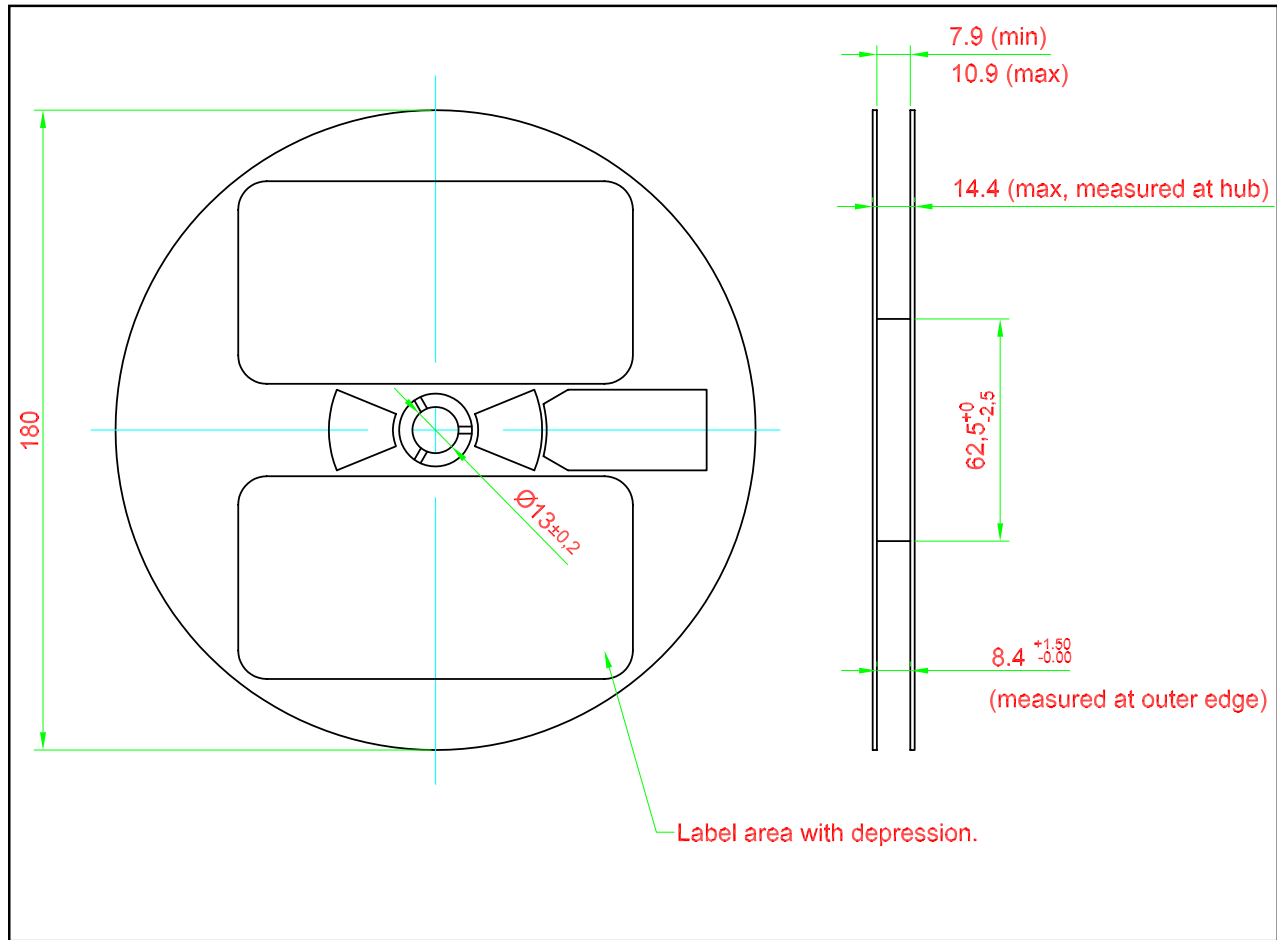
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn-Sn Plating

### Recommended Solder Pad



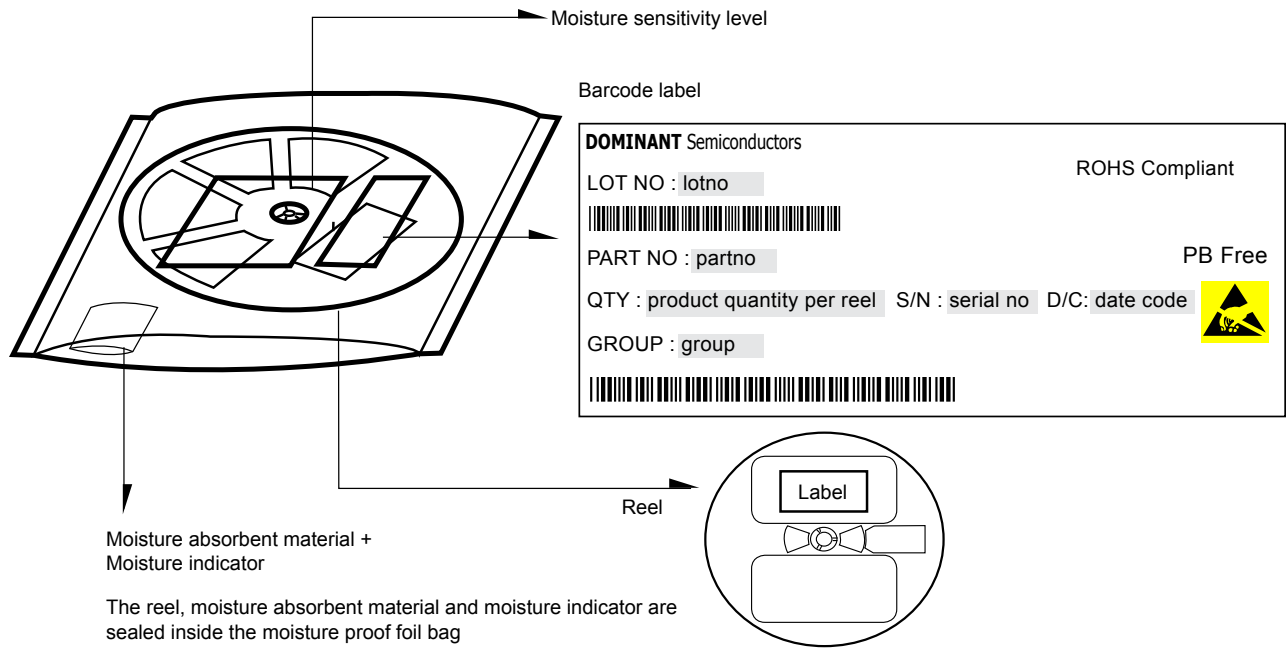


### Packaging Specification

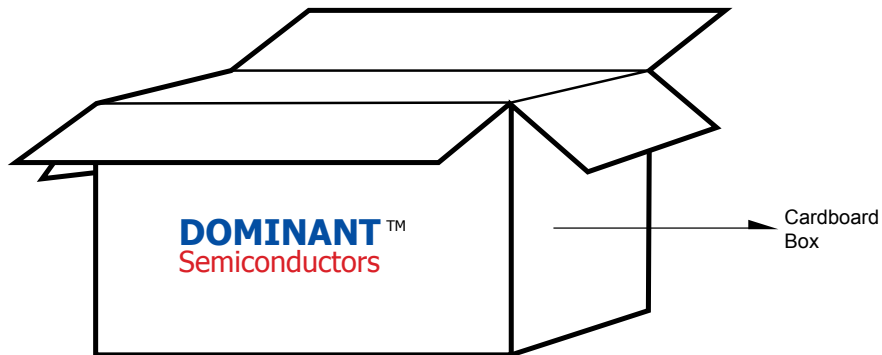




**Packaging Specification**



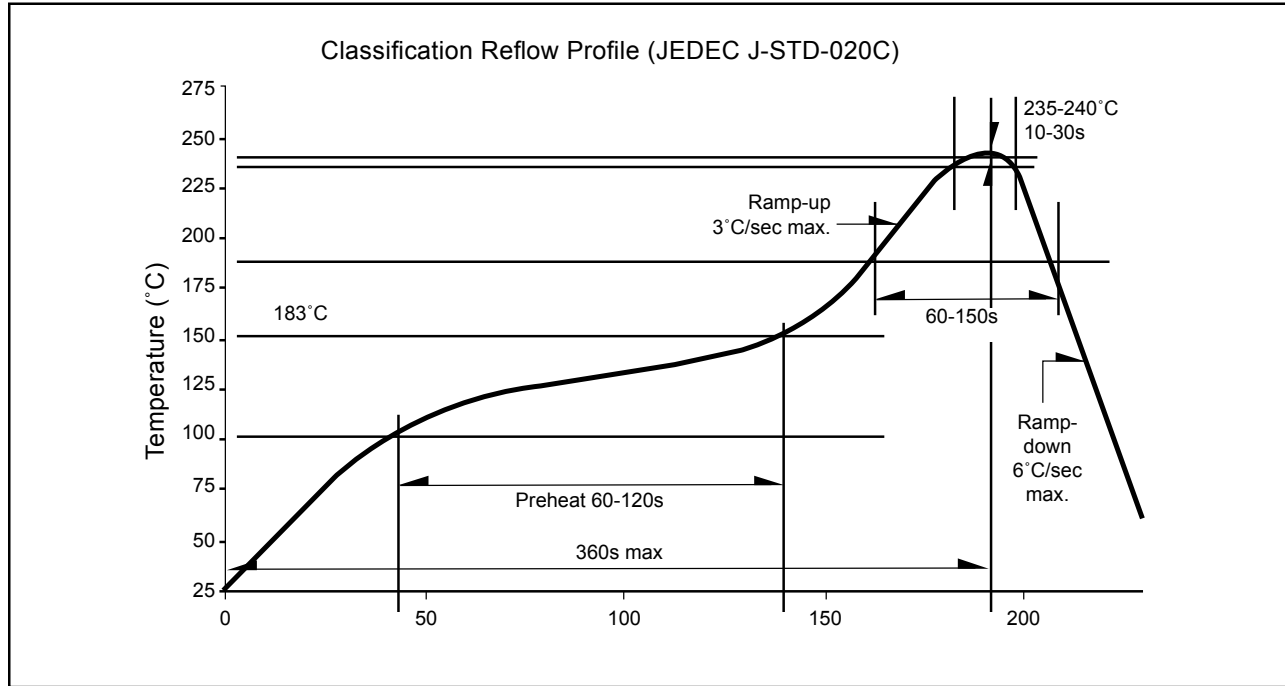
	Average 1pc DomiLED/Multi DomiLED	1 completed bag (2000pcs)
Weight (gram)	0.034	190 ± 10



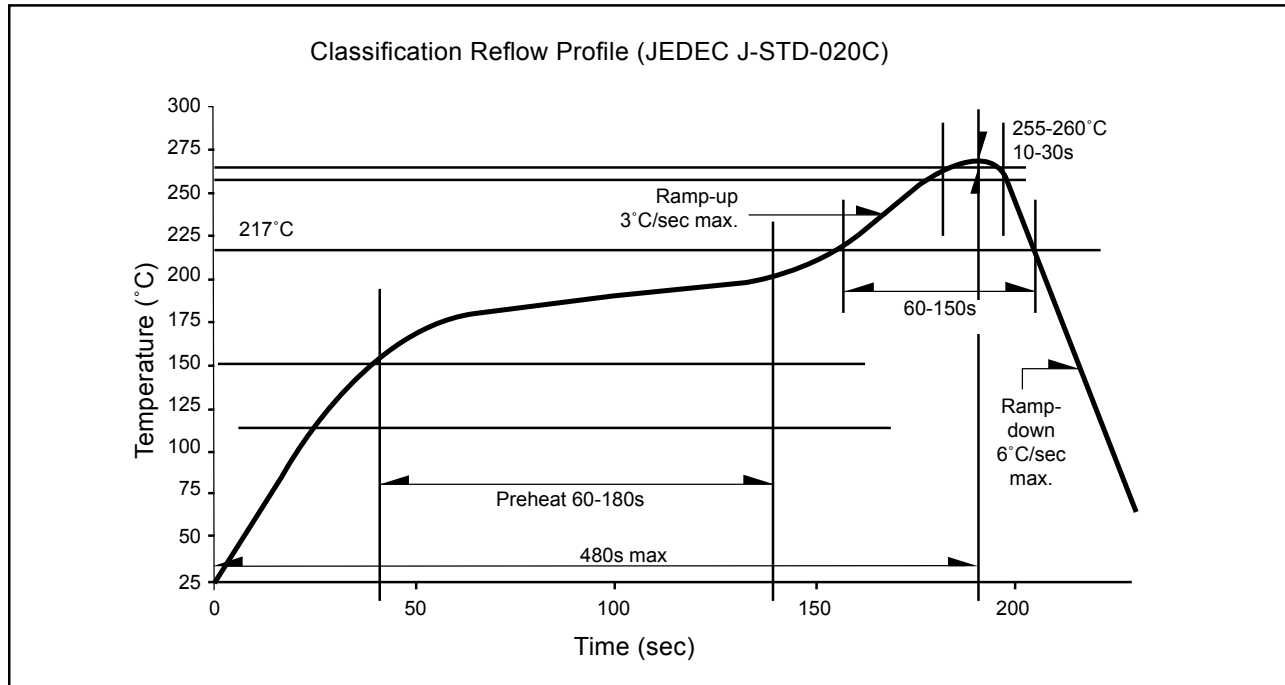
**For DomiLED™**

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 Sn-Pb IR-Reflow Soldering Profile**



**Recommended Pb-free Soldering Profile**





## 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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