

### Domiled<sup>TM</sup>

Synonymous with function and performance, the Domiled<sup>TM</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 and TTW soldering.
- > Environmental friendly; RoHS compliance.



### Applications:

- > Automotive: interior applications, eg: switches, telematics, climate control system, dashboard, etc.
- > Consumer Appliances: LCD illumination as in PDAs, LCD TV.
- > Communication: indicator and backlight in mobilephone.
- > Display: full color display video notice board.
- > Industry: white goods (eg: Oven, microwave, etc.).



Part Ordering Number	Chip Technology / Color	Viewing Angle°	Luminous Intensity @ IF = 20mA IV (mcd)
<b>DDS-EJS-S2T-1</b>	<b>AllGaP</b>	<b>120</b>	<b>224.0 - 450.0</b>
• DDS-EJS-S2	Super Red, 632nm		224.0 - 285.0
• DDS-EJS-T1			285.0 - 355.0
• DDS-EJS-T2			355.0 - 450.0
<b>DDR-EJS-TU1-1</b>	<b>AllGaP</b>	<b>120</b>	<b>285.0 - 560.0</b>
• DDR-EJS-T1	Red, 625nm		285.0 - 355.0
• DDR-EJS-T2			355.0 - 450.0
• DDR-EJS-U1			450.0 - 560.0
<b>DDA-EJS-T2U-1</b>	<b>AllGaP</b>	<b>120</b>	<b>355.0 - 715.0</b>
• DDA-EJS-T2	Amber, 615nm		355.0 - 450.0
• DDA-EJS-U1			450.0 - 560.0
• DDA-EJS-U2			560.0 - 715.0
<b>DDY-EJS-T2U-1</b>	<b>AllGaP</b>	<b>120</b>	<b>355.0 - 715.0</b>
• DDY-EJS-T2	Yellow, 587nm		355.0 - 450.0
• DDY-EJS-U1			450.0 - 560.0
• DDY-EJS-U2			560.0 - 715.0

**NOTE**

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

**Wavelength Grouping**

Color	Group	Wavelength distribution (nm)
DDS; Super Red	Full	625 - 640
DDR; Red	Full	620 - 630
DDA; Amber	Full	610 - 621
	W	610 - 615
	X	615 - 621
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  $\pm 1$  nm.

## Electrical Characteristics at Ta=25°C

Part Number	Vf @ If = 20mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DDx-EJ	1.8	2.0	2.6	12

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

## Vf Bining (Optional)

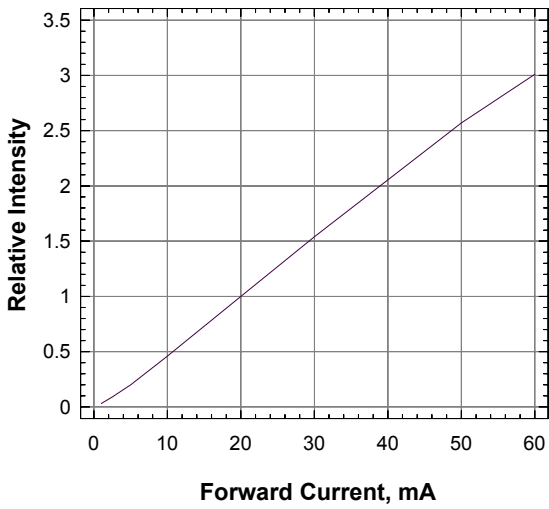
Vf @ If = 20mA	Forward Voltage (V)
01	1.55 ... 1.85
02	1.85 ... 2.15
03	2.15 ... 2.45
04	2.45 ... 2.65

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

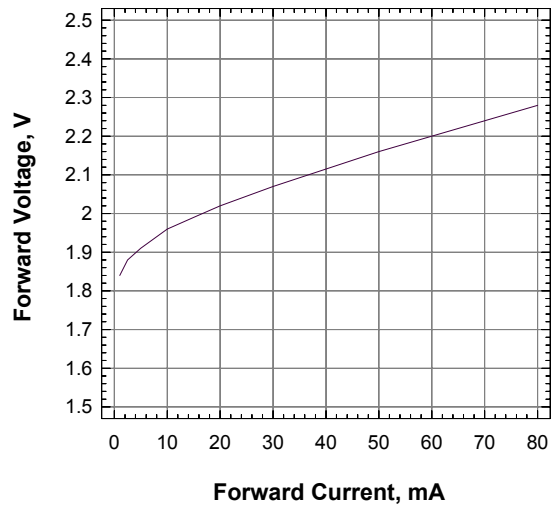
## Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	30	mA
Peak pulse current; (tp ≤ 10μs, Duty cycle = 0.1)	1000	mA
Reverse voltage	12	V
ESD Thereshold (HBM)	2	kV
LED junction temperature	125	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	78	mW

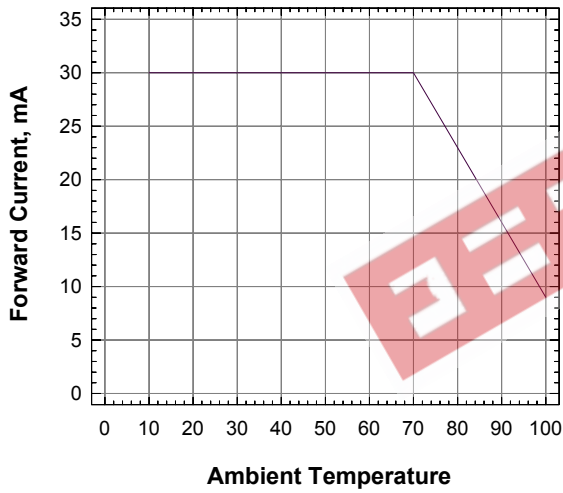
**Relative Luminous Intensity Vs Forward Current**



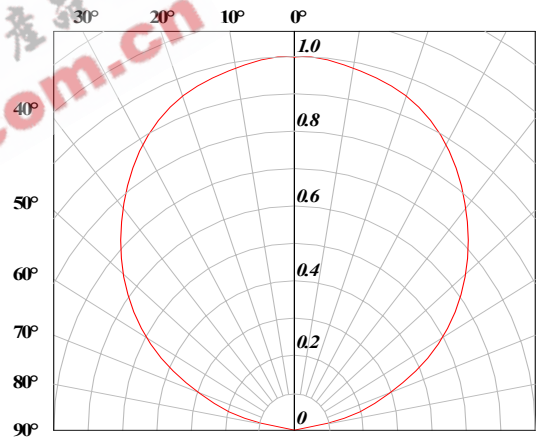
**Forward Current Vs Forward Voltage**



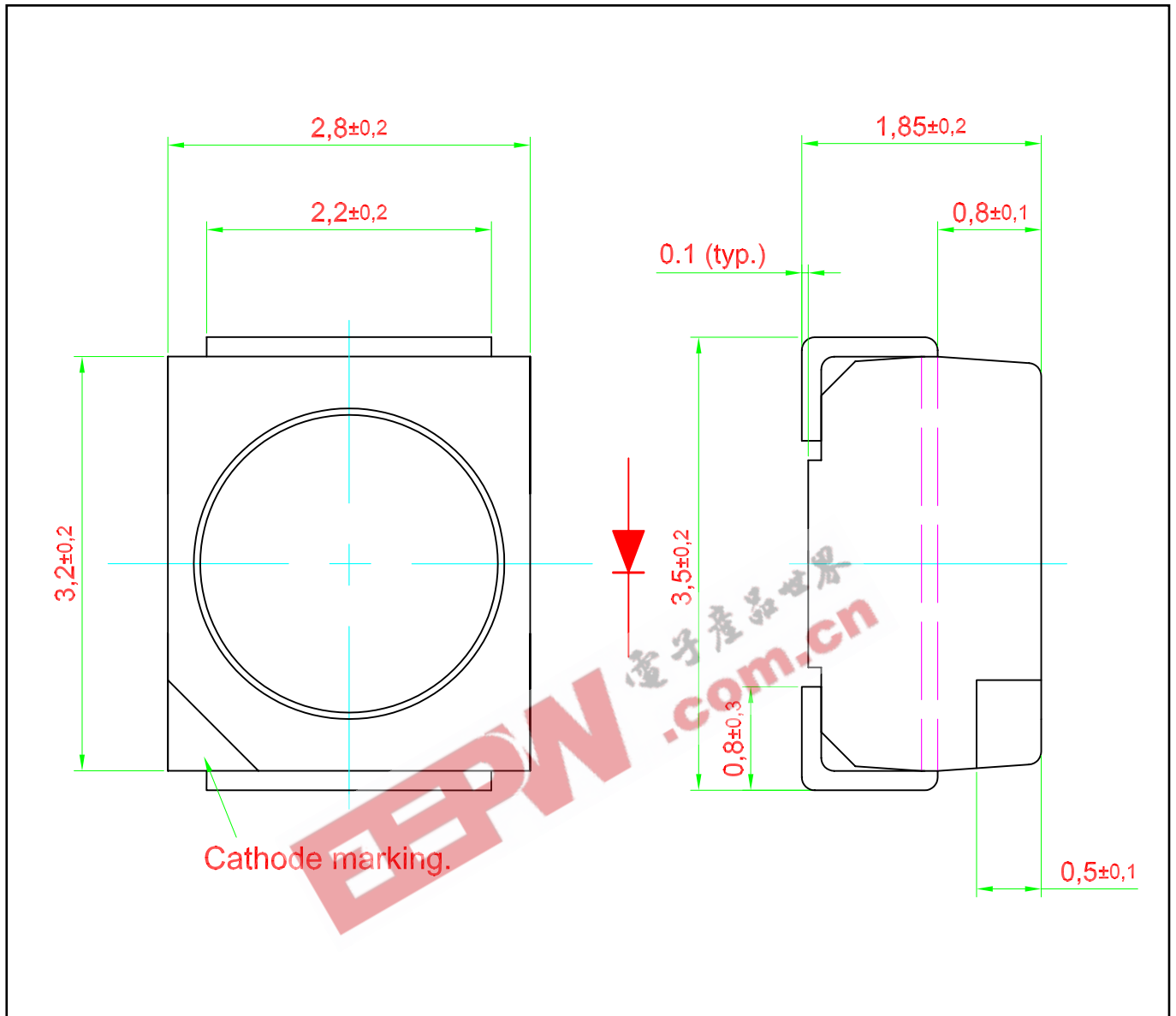
**Maximum Current Vs Temperature**



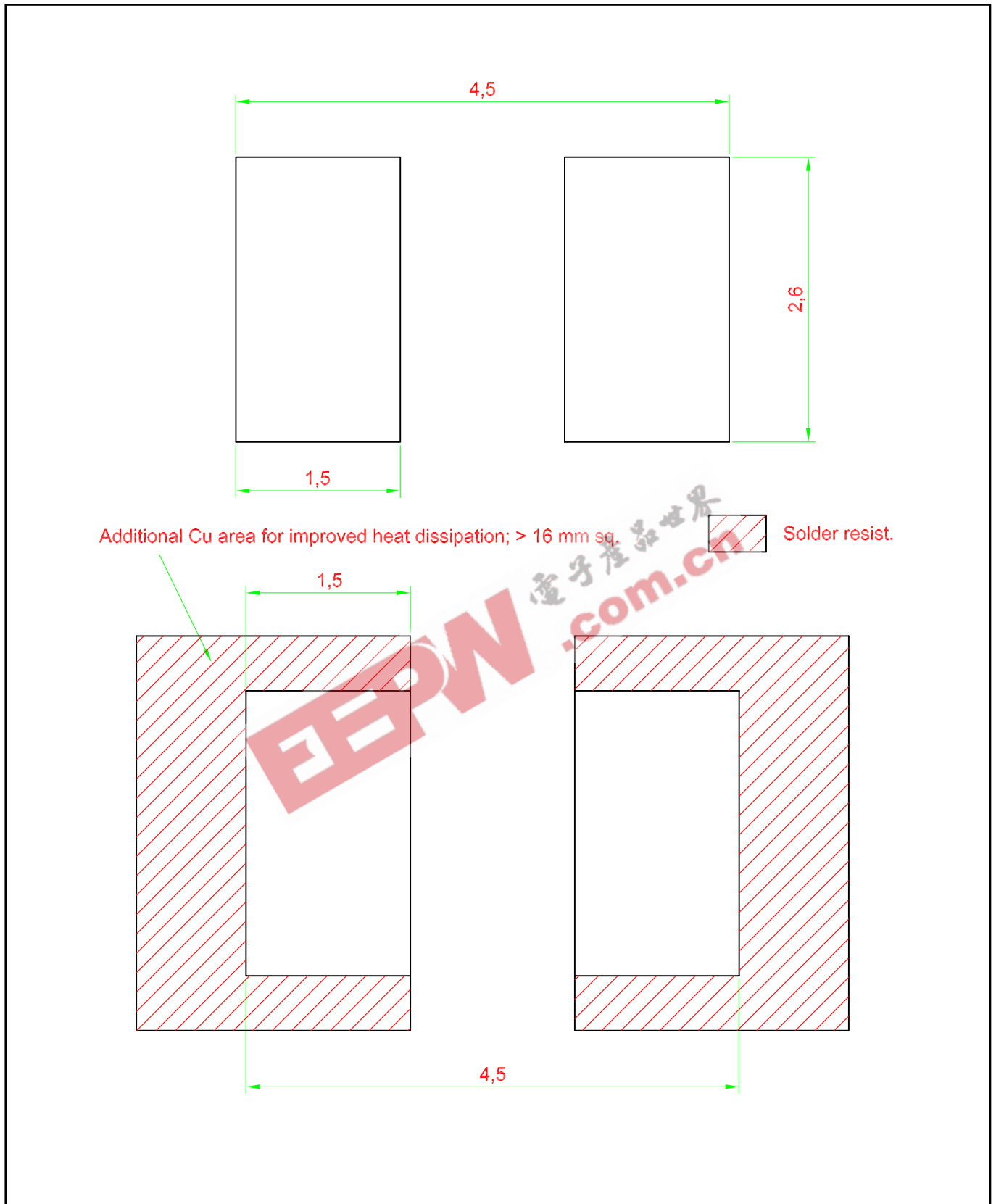
**Radiation Pattern**



**DomiLED™ • AllnGaP : DDx-EJS Package Outlines**

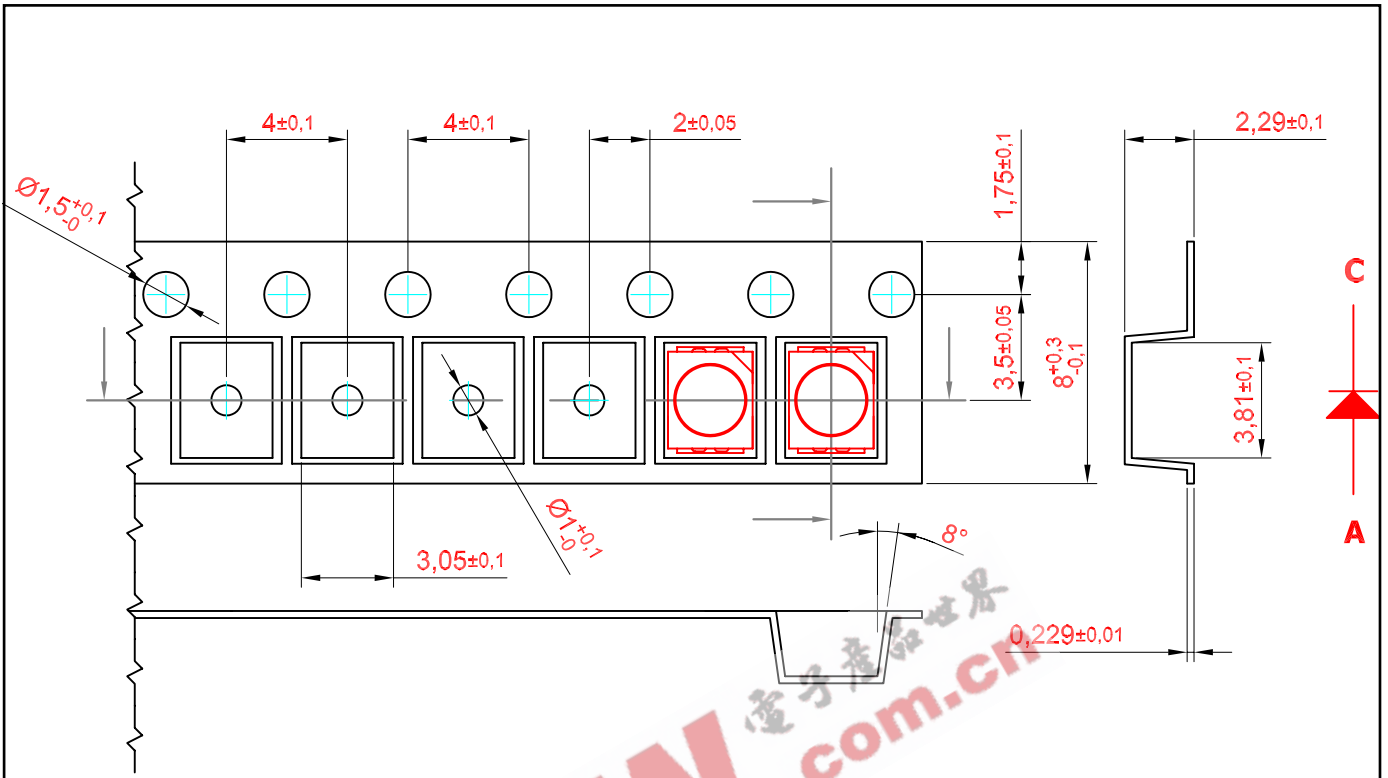


### Recommended Solder Pad



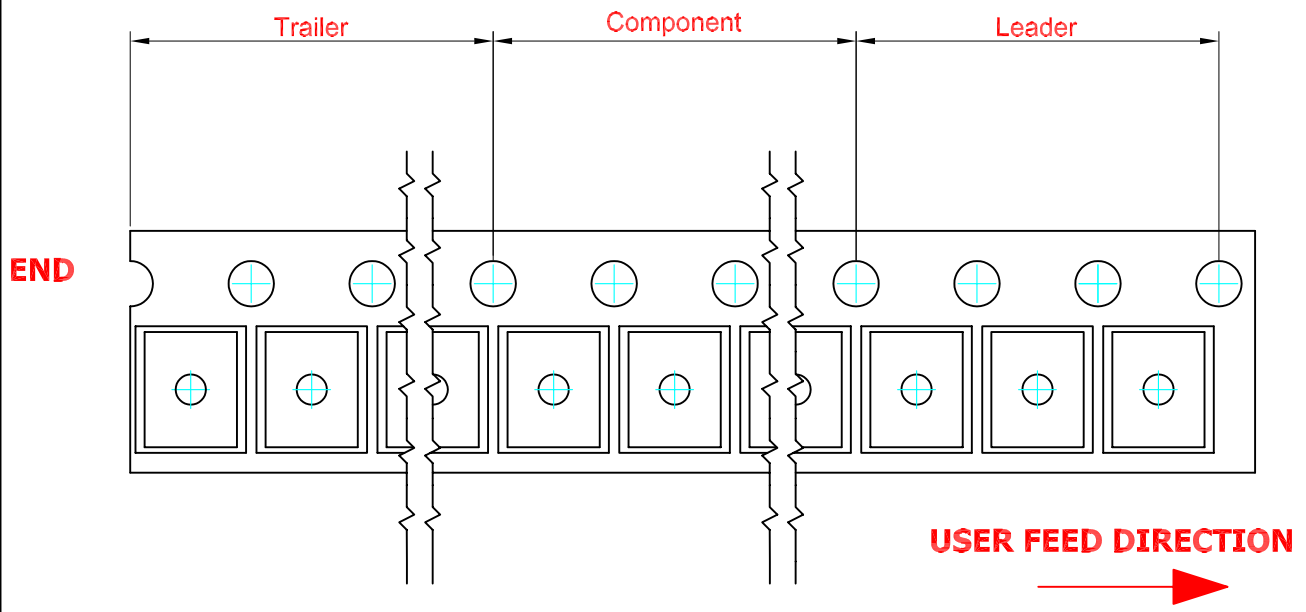
**Taping and orientation**

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

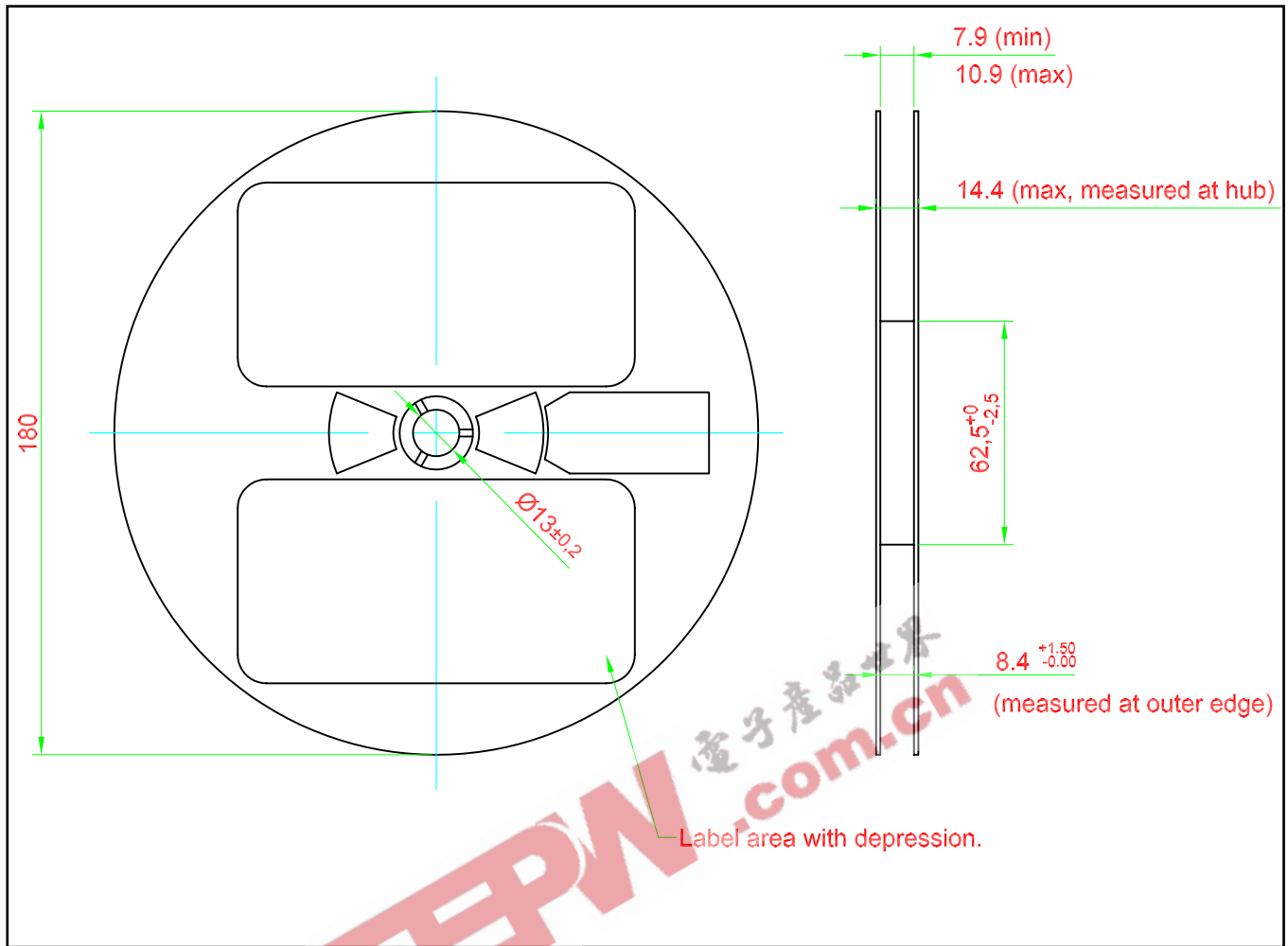


200 mm min. for  $\varnothing 180$  reel.  
200 mm min. for  $\varnothing 330$  reel.

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

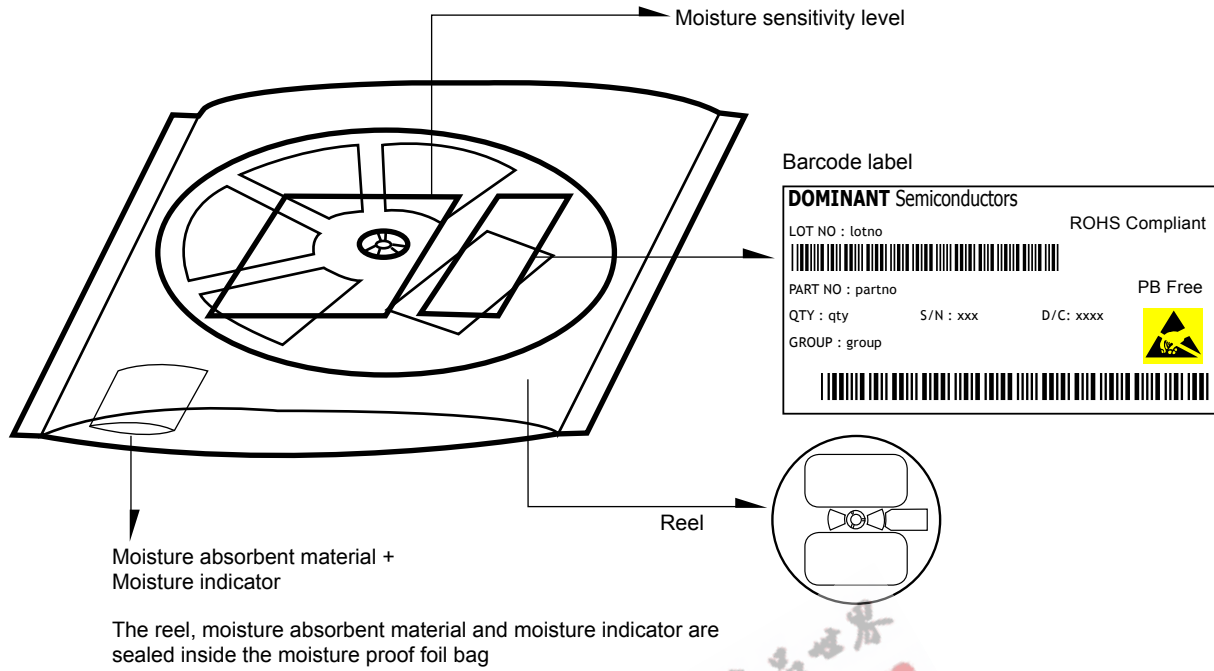


**Packaging Specification**





**Packaging Specification**

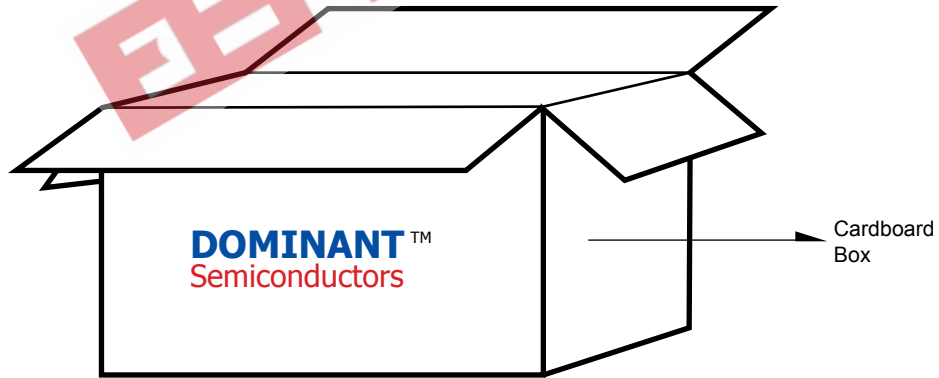


**Average 1pc DomiLED/Multi DomiLED 1 completed bag (2000pcs)**

Weight (gram)

0.034

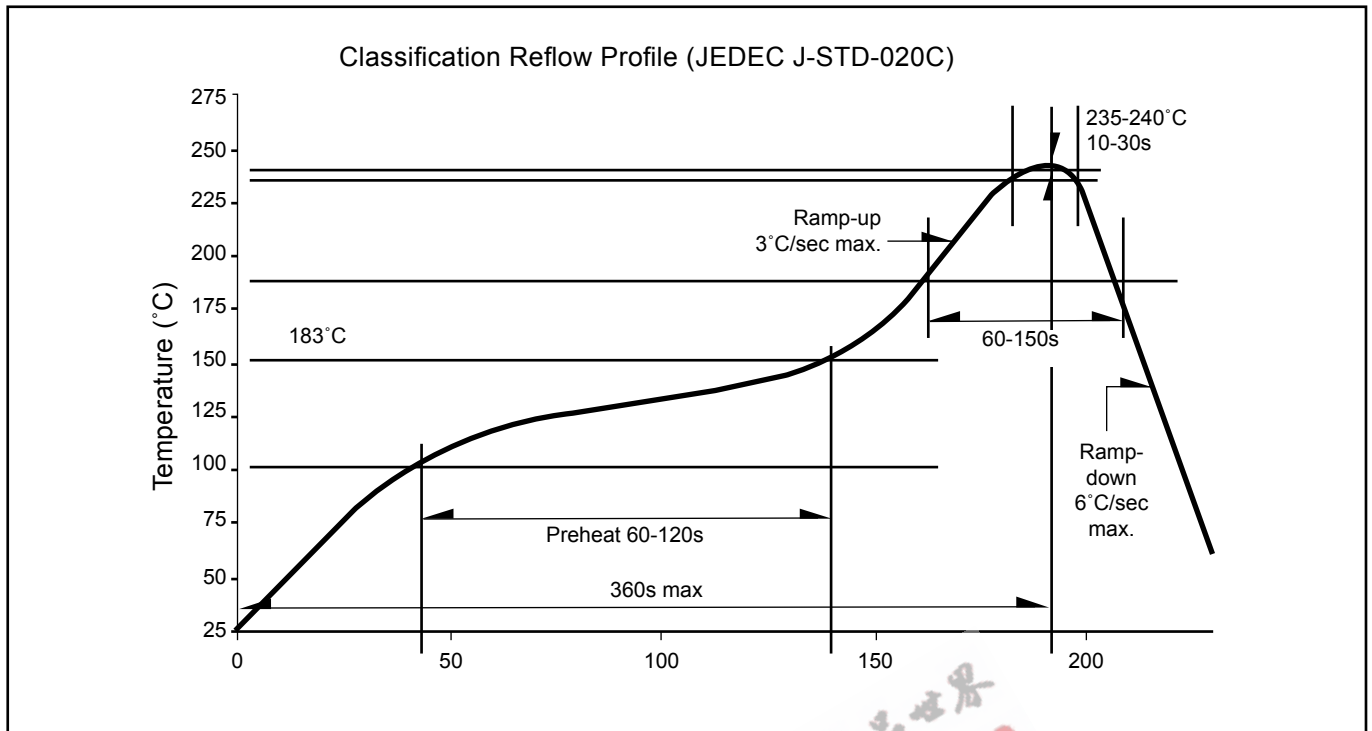
190 ± 10



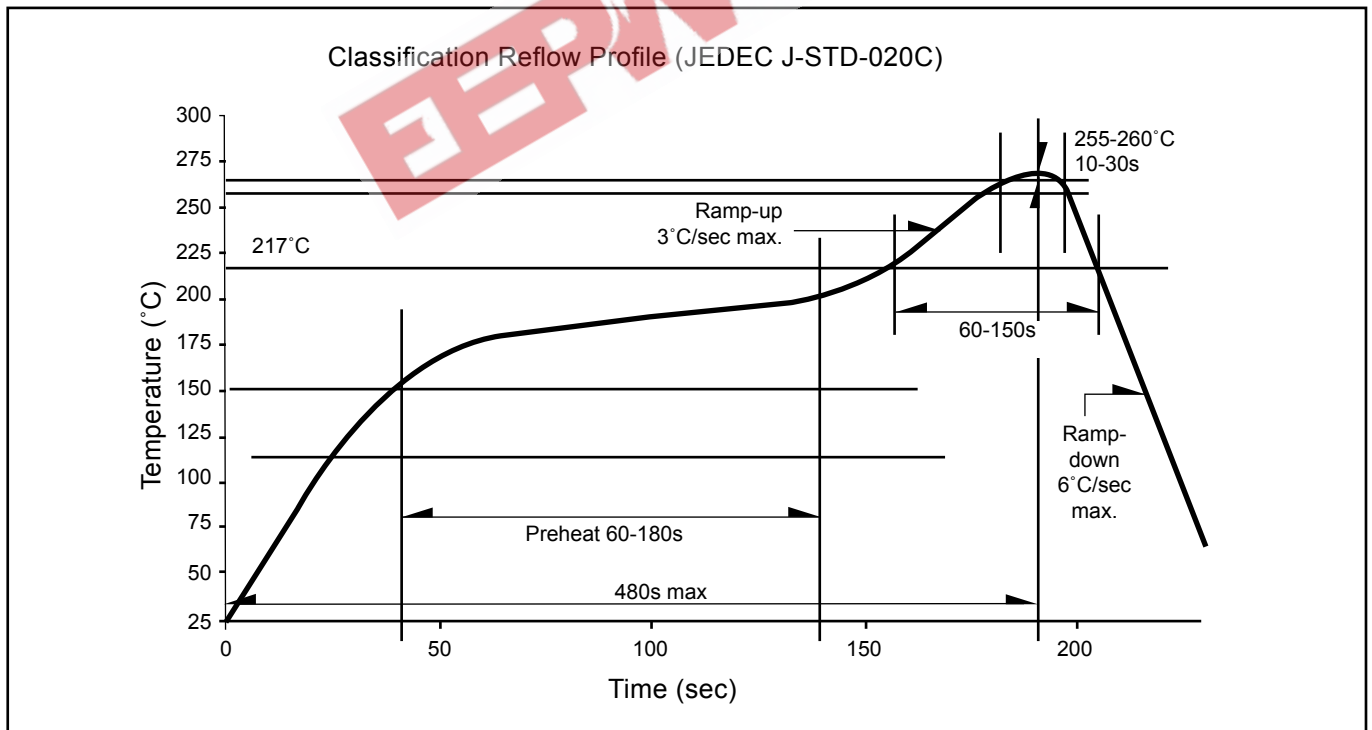
**For DomiLED™**

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	55 reels MAX	110,000 MAX

**Recommended Sn-Pb IR-Reflow Soldering Profile**

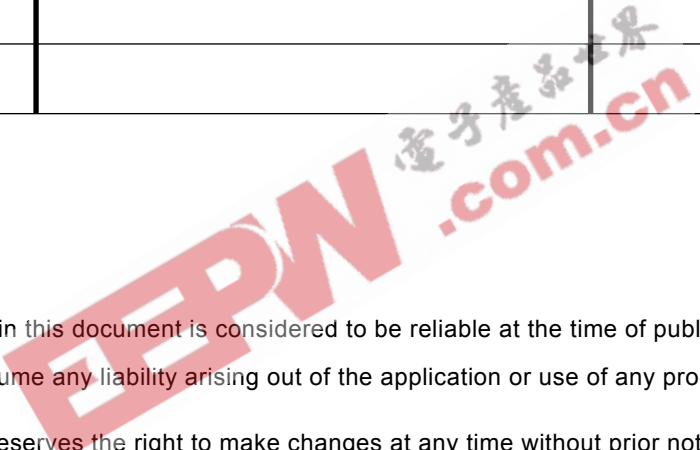


**Recommended Pb-free Soldering Profile**



**Revision History**

Page	Subjects	Date of Modification
-	New Format	15 Nov 2005



**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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