

### 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.
- > 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.
- > Consumer appliances: LCD illumination as in PDAs, LCD TV.
- > Communication: indicator and backlight in mobilephone.
- > Display: full color display video notice board.
- > Industrial: white goods (eg: Oven, microwave, etc.).



**Optical Characteristics at Tj=25°C**

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ 2mA IV (mcd)		
			Min.	Typ.	Max.
DDS-CJS-J2L1-1-I2	Super-red, 632nm	120	5.60	9.00	14.00
DDR-CJS-LM2-1-I2	Red, 625nm	120	11.20	18.00	28.50
DDO-CJS-KL2-1-I2	Orange, 605nm	120	7.20	11.20	18.00
DDO-CJS-LM2-1-I2	Orange, 605nm	120	11.20	18.00	28.50
●DDY-CJS-KL2-1-I2	Yellow, 587nm	120	7.20	11.20	18.00
DDY-CJS-LM2-1-I2	Yellow, 587nm	120	11.20	18.00	28.50
DDG-CJS-HJ2-1-I2	Green, 572nm	120	2.80	4.50	7.20
DDP-SJS-FG1-1-I2	Pure Green, 560nm	120	1.10	1.40	2.24

● 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 ± 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
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DDS, DDR, DDO, DDY, DDG, DDP	1.6	1.8	2.2	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	20	mA
Peak pulse current; (tp ≤ 10μs, 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	625.0 - 640.0
DDR; Red	Full	620.0 - 630.0
DDO; Orange	Full	600.0 - 612.0
	W	600.0 - 603.0
	X	603.0 - 606.0
	Y	606.0 - 609.0
	Z	609.0 - 612.0
DDY; Yellow	Full	582.0 - 594.0
	W	582.0 - 585.0
	X	585.0 - 588.0
	Y	588.0 - 591.0
	Z	591.0 - 594.0
DDG; 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
DDP; Pure Green	Full	552.5 - 564.5
	W	552.5 - 555.5
	X	555.5 - 558.5
	Y	558.5 - 561.5
	Z	561.5 - 564.5

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

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

Brightness Group	Luminous Intensity IV (mcd)
F1	1.10...1.40
F2	1.40...1.80
G1	1.80...2.24
H1	2.80 ... 3.55
H2	3.55...4.50
J1	4.50...5.60
J2	5.60...7.20
K1	7.20...9.00
K2	9.00...11.20
L1	11.20...14.00
L2	14.00...18.00
M1	18.00...22.40
M2	22.40...28.50

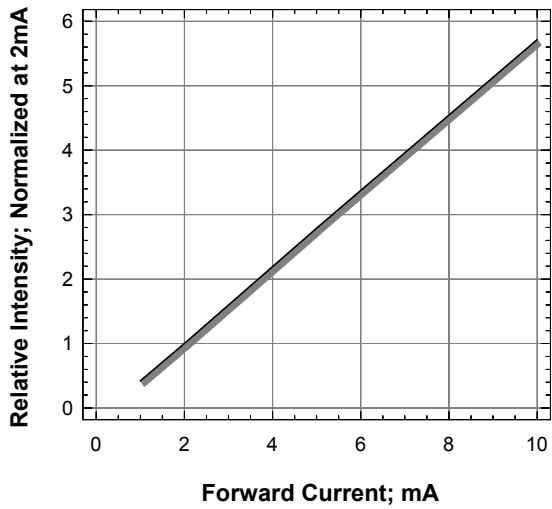
Luminous intensity is measured with an accuracy of ± 11%.

**Vf Binning (Optional)**

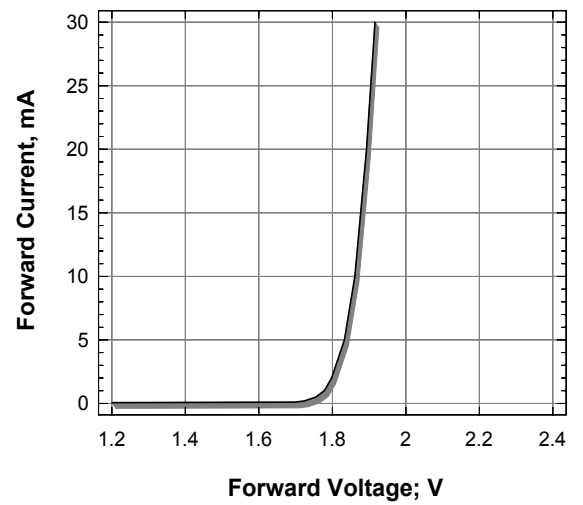
Vf Bin	Forward Voltage (V)
VA	1.60 ... 1.80
VB	1.80 ... 2.00
VC	2.00 ... 2.20

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

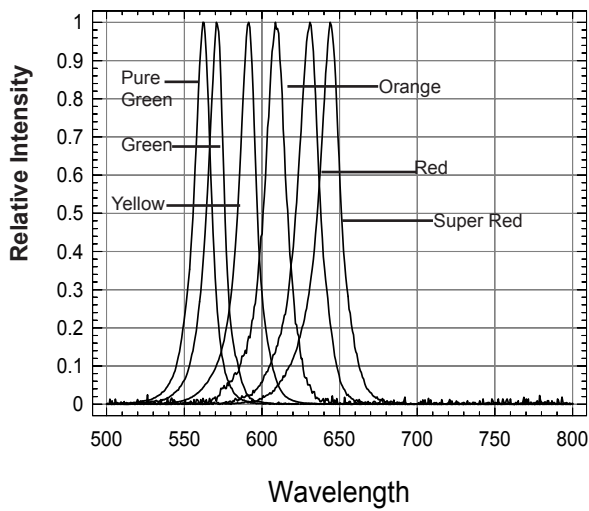
**Relative Intensity Vs Forward Current**



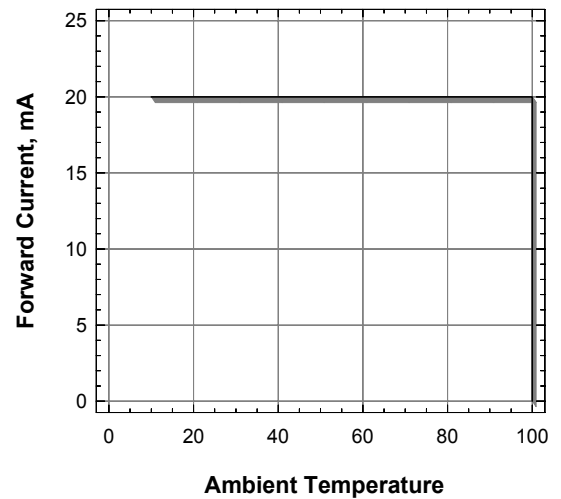
**Forward Current Vs Forward Voltage**



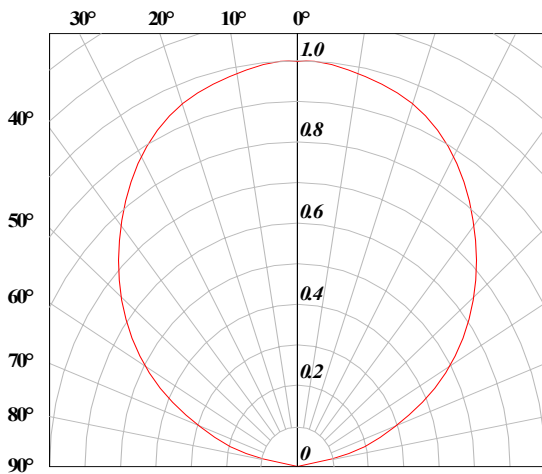
**Relative Intensity Vs Wavelength**



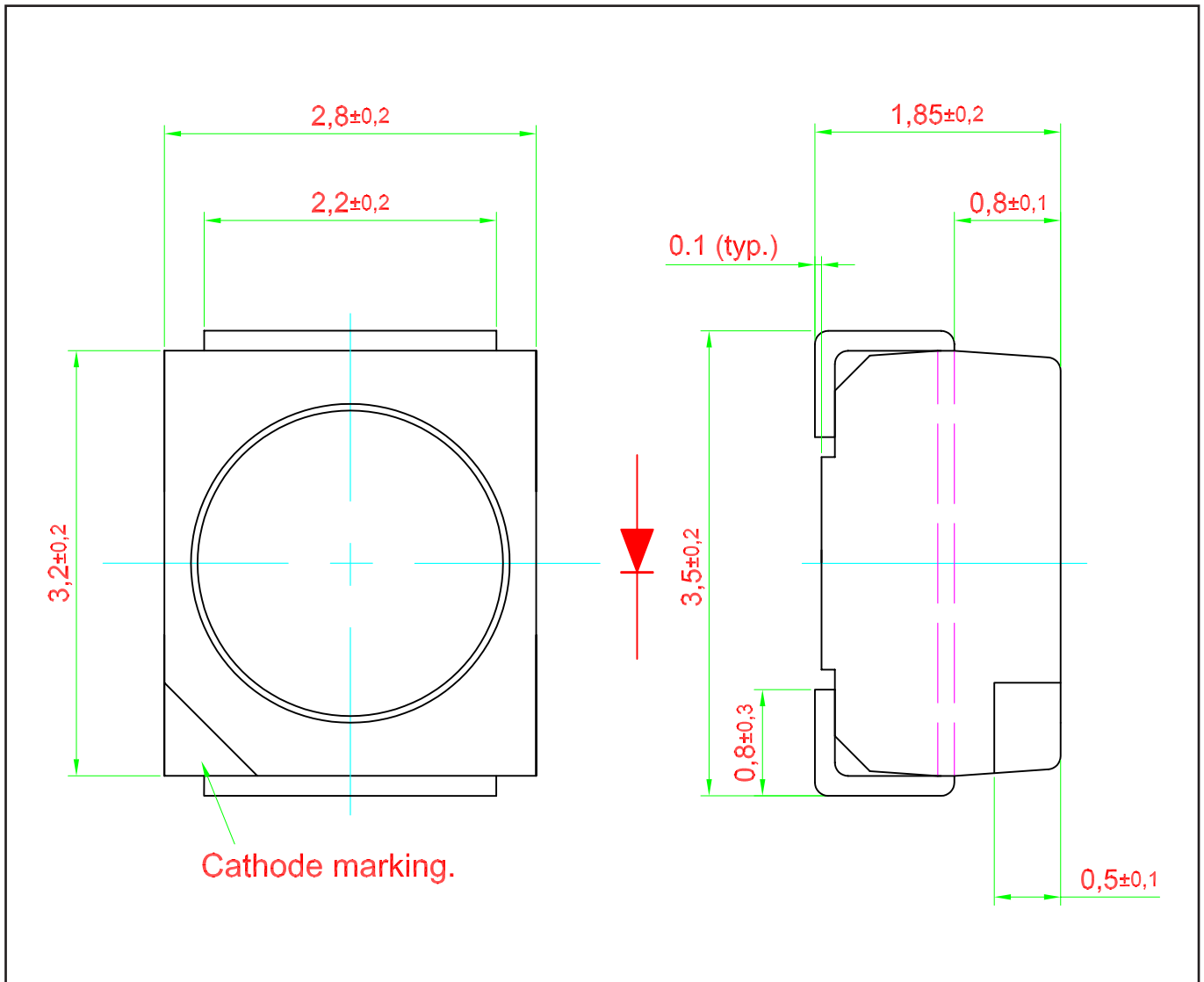
**Forward Current Vs Ambient Temperature**



**Radiation Pattern**



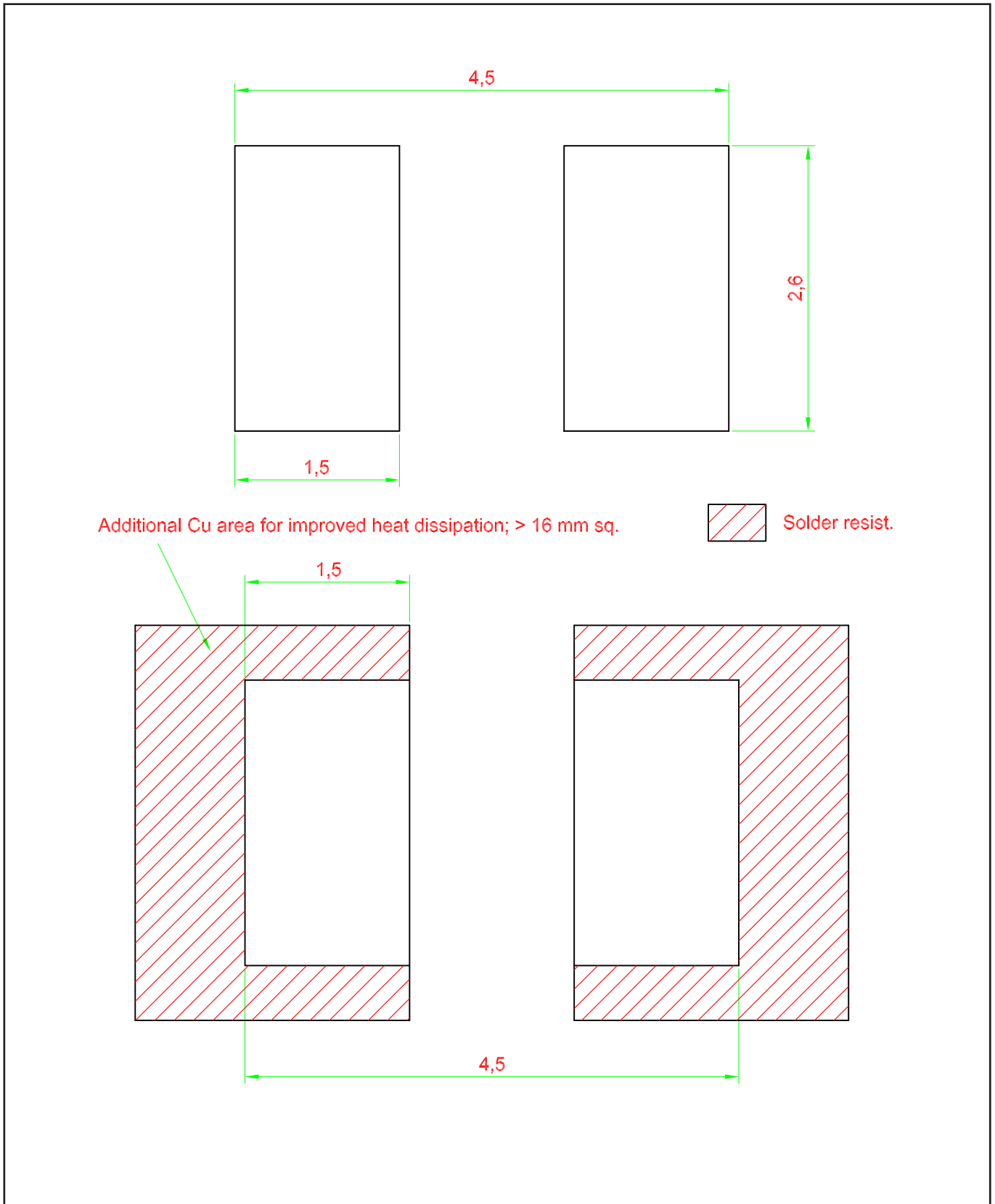
**DomiLED™ • AllnGaP : DDx-xJS-I2 Package Outlines**



**Material**

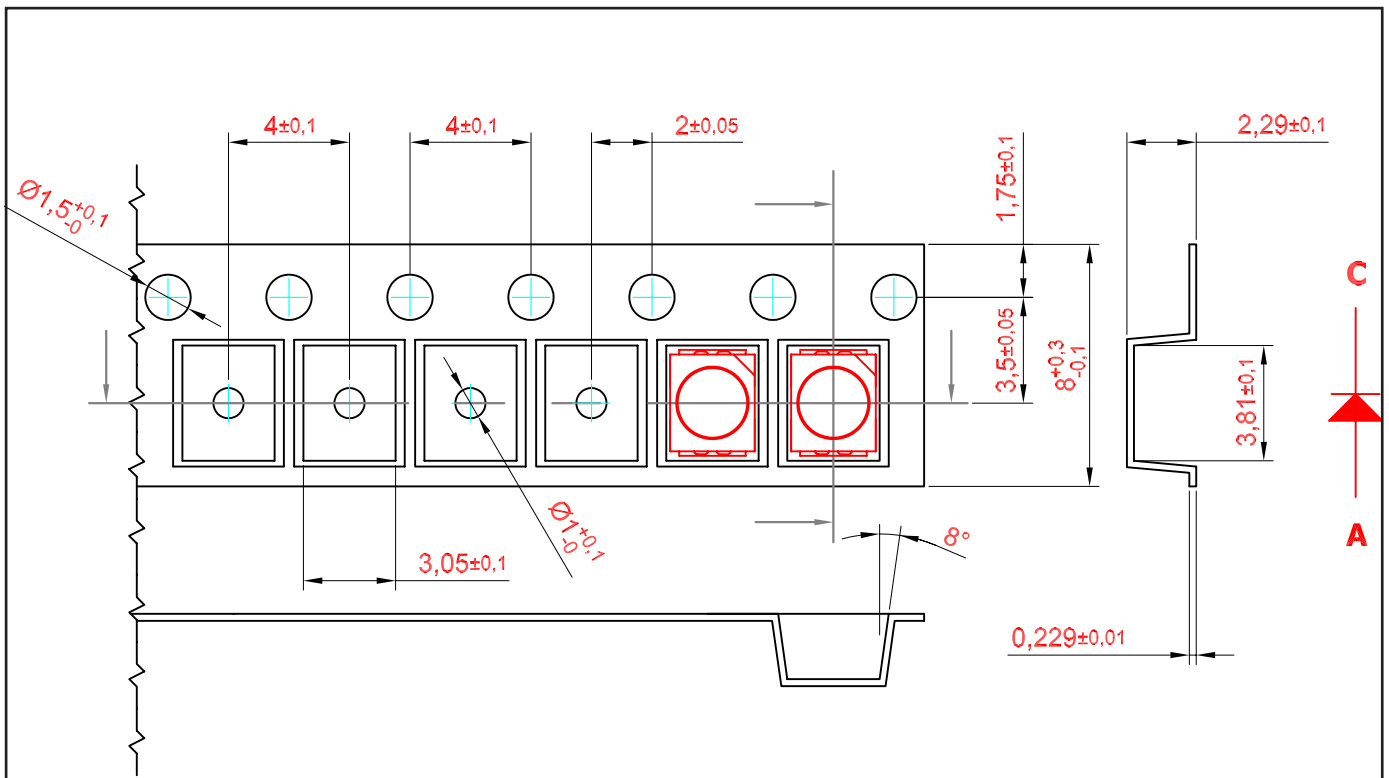
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn Plating

### Recommended Solder Pad



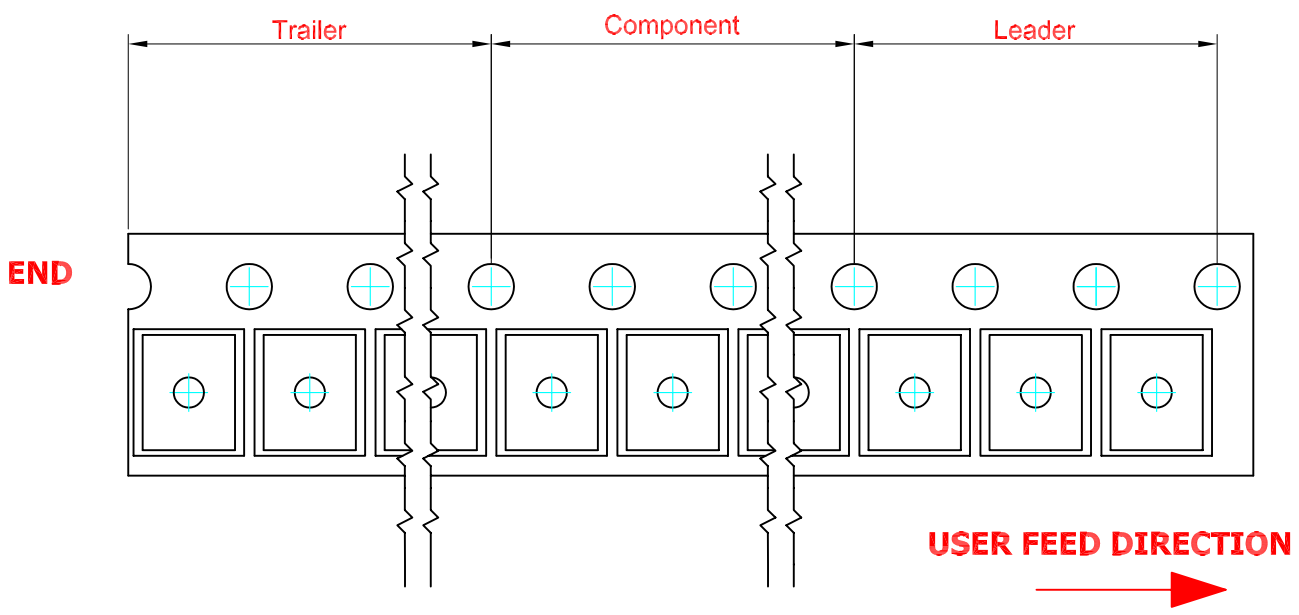
### Taping and orientation

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



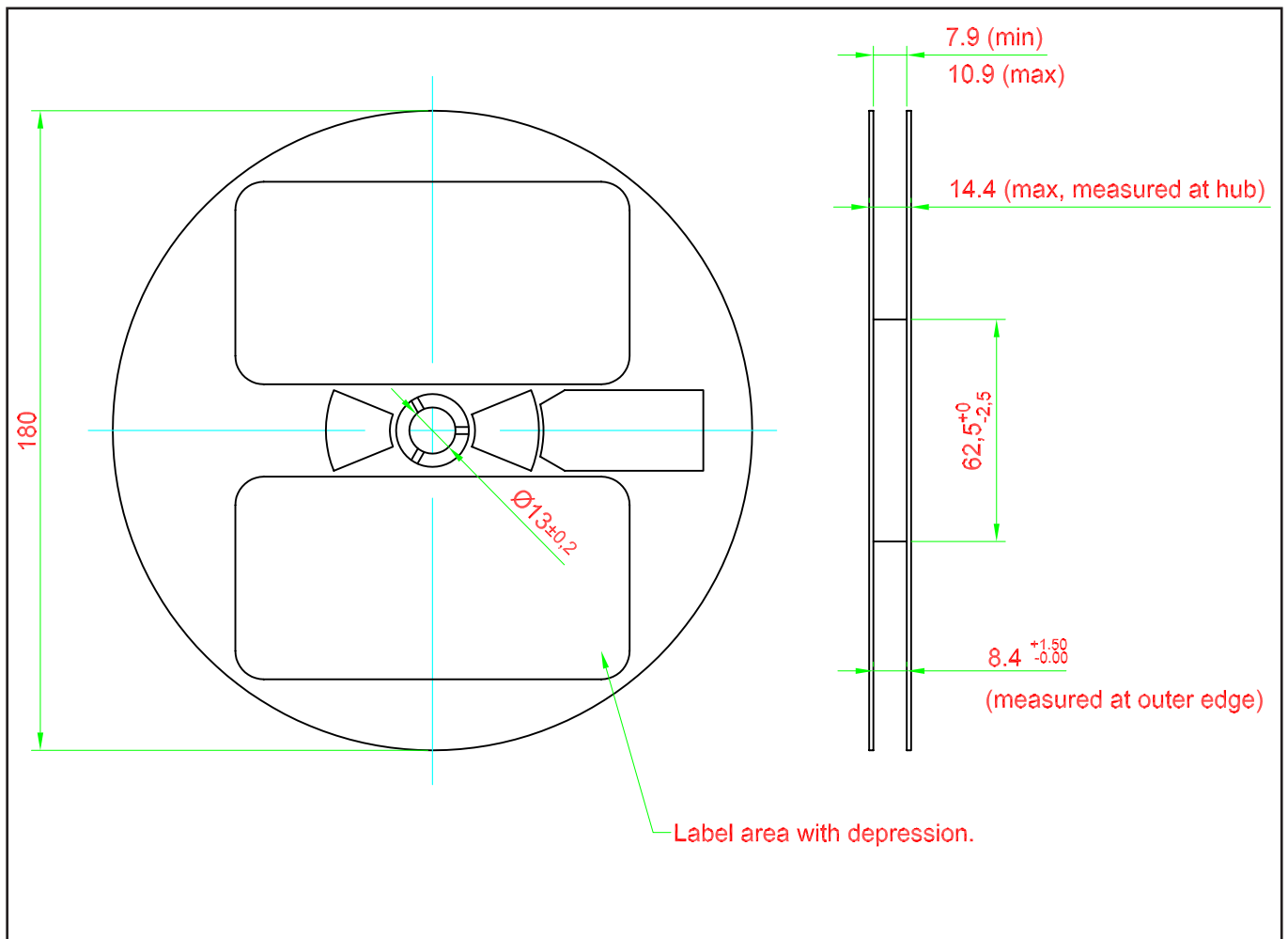
200 mm min. for  $\varnothing 180$  reel.  
 200 mm min. for  $\varnothing 330$  reel.

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

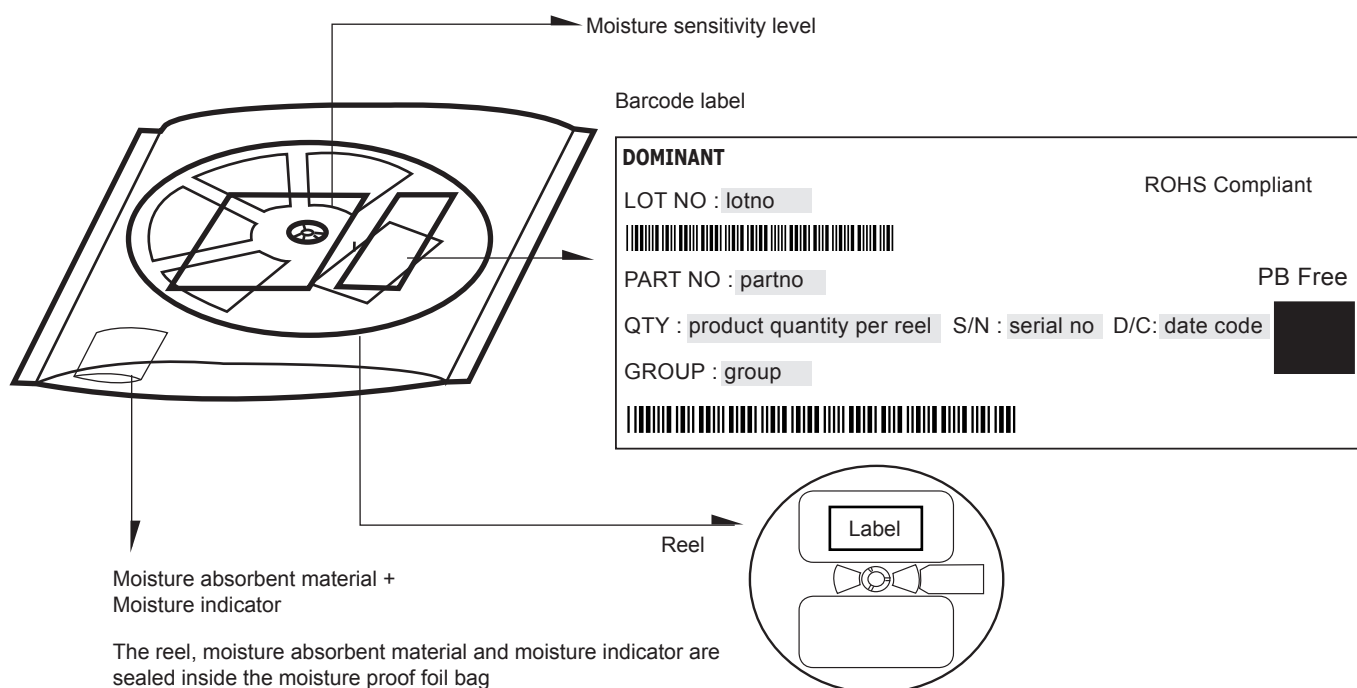




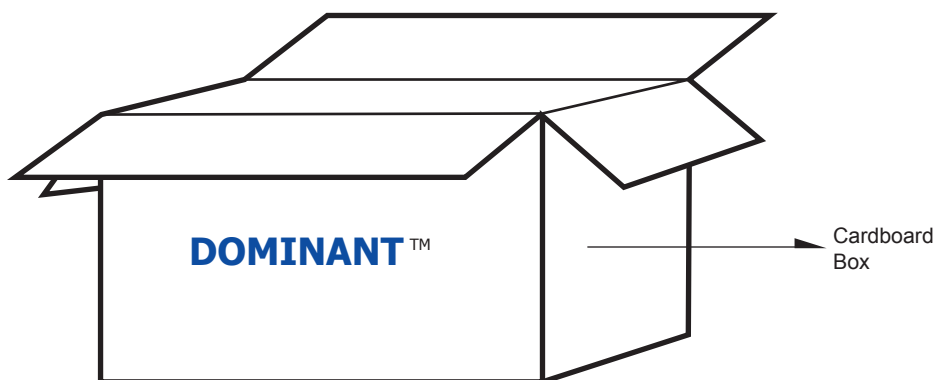
### Packaging Specification



**Packaging Specification**



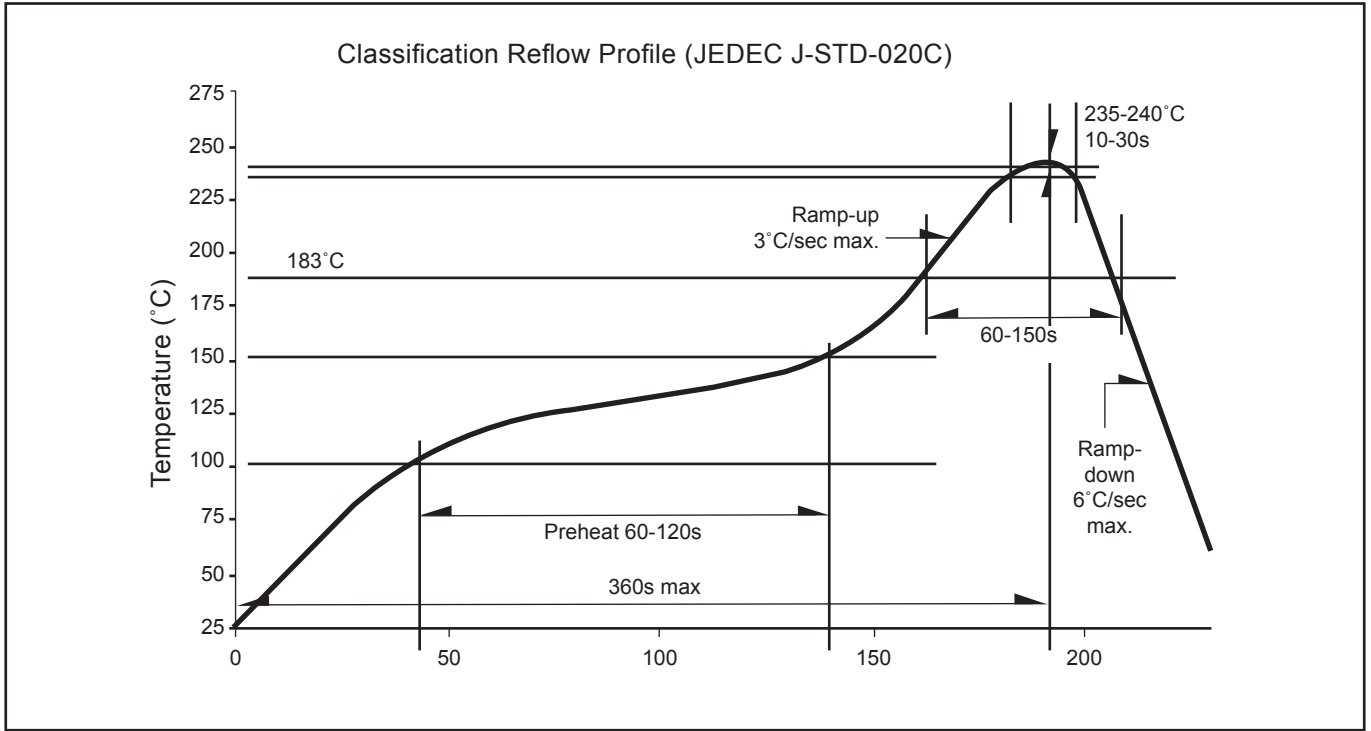
	Average 1pc DomiLED/Multi DomiLED	1 completed bag (2000pcs)
Weight (gram)	0.034	190 ± 10



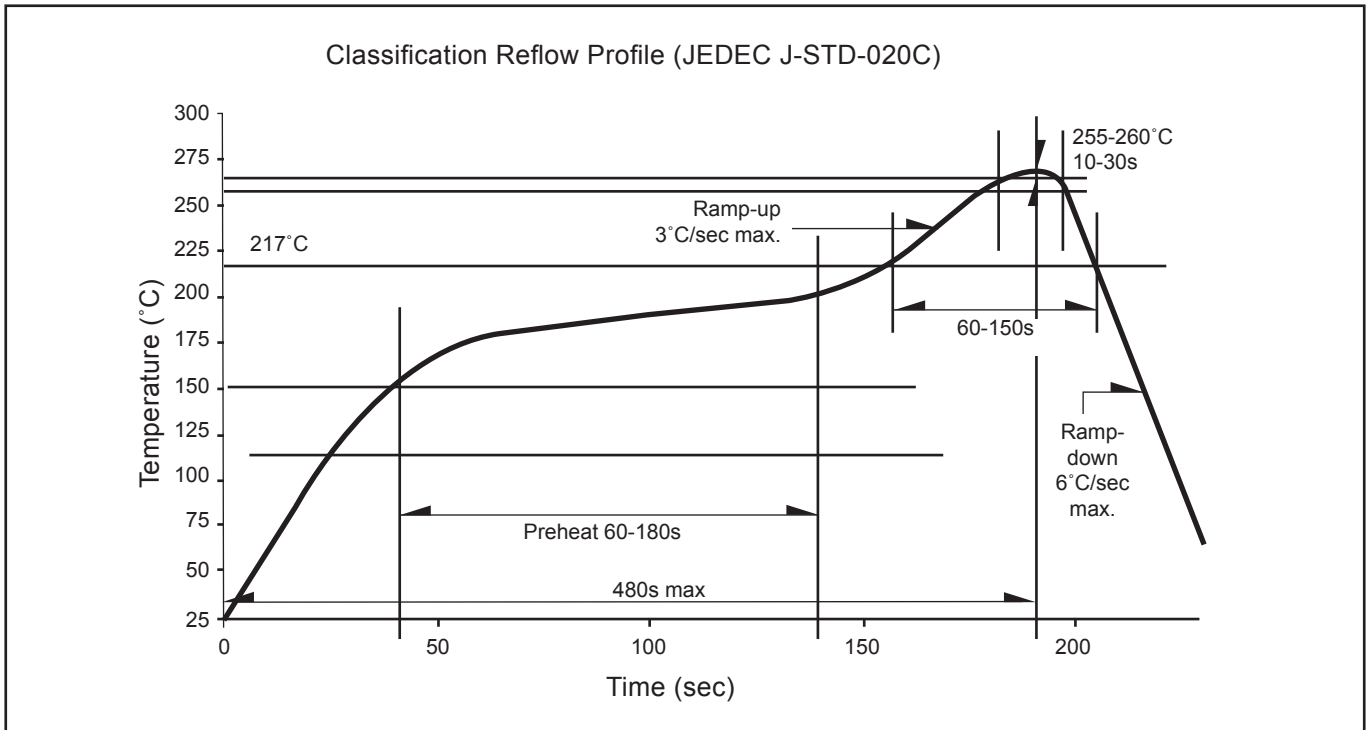
**For DomiLED™**

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	192,000 MAX

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



**Recommended Pb-free Soldering Profile**



**Revision History**

<b>Page</b>	<b>Subjects</b>	<b>Date of Modification</b>
-	New Format	06 Sep 2006
2	Add new partno: DDP-SJS-FG1-1-I2	26 Oct 2007
2	Add new partno: DDO-CJS-LM2-1-I2	28 Nov 2007
2	Add new partno: DDR-CJS-LM2-1-I2	23 Apr 2009
2	Add new partno: DDY-CJS-LM2-1-I2 Not for new design: DDY-CJS-KL2-1-I2	27 Jul 2009
-	Update company name	31 May 2010
3	Add Vf binning option	03 Aug 2010
4	Add: " Relative Luminous Intensity VS Forward Current " graph	13 Apr 2011
2	Add new partno: DDG-CJS-HJ2-1-I2	30 Jun 2011

**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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