

**Carrier Tape Change for all Right Angle DomiLED DSx
Product Change Notice issued on 18 May 2015.**

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.
- > Designed for sideways illumination.
- > 120° viewing angle.
- > Small package outline.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.



Applications:

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



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ IF = 20mA IV (mcd)		
			Min.	Typ.	Max.
DSB-DSS-ST2-1	Blue, 470nm	120	180.0	220.0	450.0
DST-DSS-WX1-1	True Green, 525nm	120	1125.0	1700.0	2240.0
DST-DSS-VW1-1	True Green, 525nm	120	715.0	950.0	1400.0

NOTE

1. All part number above comes in a quantity of 2500 units per reel.
2. Other luminous intensity groups are also available upon request.
3. Luminous intensity is measured with an accuracy of ± 11%.
4. 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 = 20mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DSx-DSS	2.9	3.2	3.8	5.0

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

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	20	mA
Peak pulse current; (tp ≤ 10µs, Duty cycle = 0.005)	100	mA
Reverse voltage; Ir (max) = 10uA	5	V
ESD threshold (HBM)	1000	V
LED junction temperature	120	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	80	mW
Thermal resistance		
- Junction / ambient, Rth JA	460	K/W
- Junction / solder point, Rth JS	240	K/W
(Mounting on FR4 PCB, pad size ≥ 5 mm ² per pad)		

Wavelength Grouping

Color	Group	Wavelength distribution (nm)
DSB;Blue	Full	465 - 475
	A	465 - 470
	B	470 - 475
DST; True Green	Full	520 - 535
	A	520 - 525
	B	525 - 530
	C	530 - 535

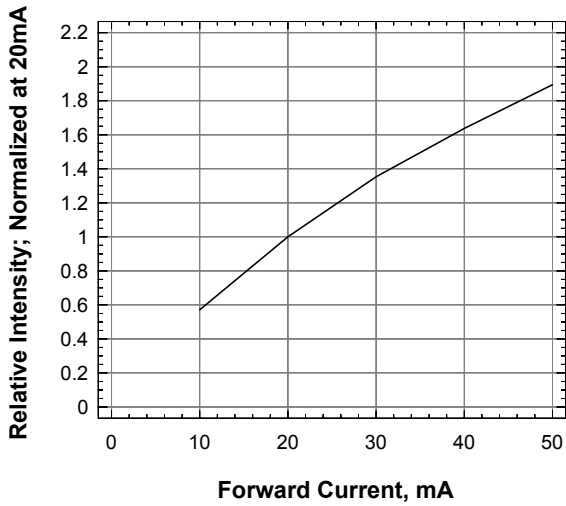
Dominant wavelength is measured with an accuracy of ± 1 nm.

Luminous Intensity Group at Tj=25°C

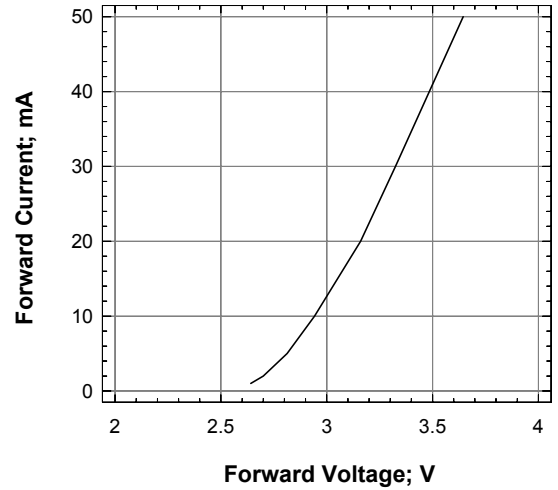
Brightness Group	Luminous Intensity IV (mcd)
S1	180.0 ... 224.0
S2	224.0 ... 285.0
T1	285.0 ... 355.0
T2	355.0 ... 450.0
V1	715.0 ... 900.0
V2	900.0 ... 1125.0
W1	1125.0 ... 1400.0
W2	1400.0 ... 1800.0
X1	1800.0 ... 2240.0

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

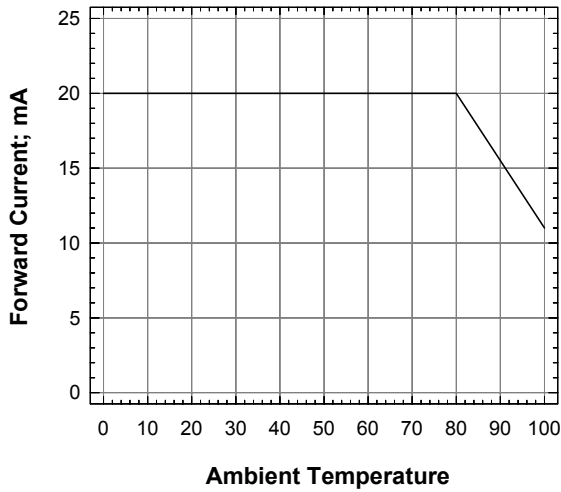
Relative Luminous Intensity Vs Forward Current



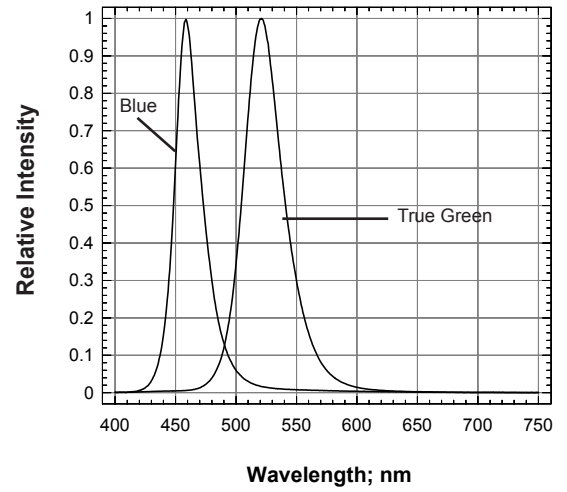
Forward Current Vs Forward Voltage



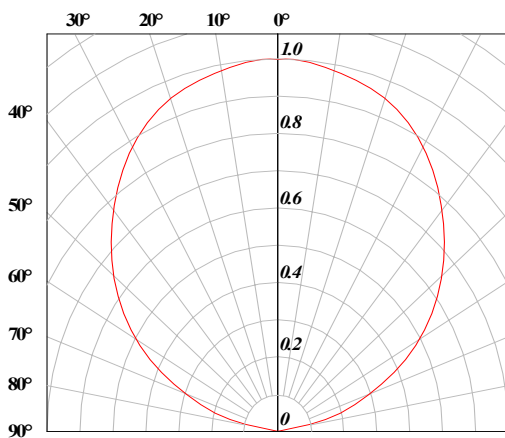
Maximum Current Vs Ambient Temperature



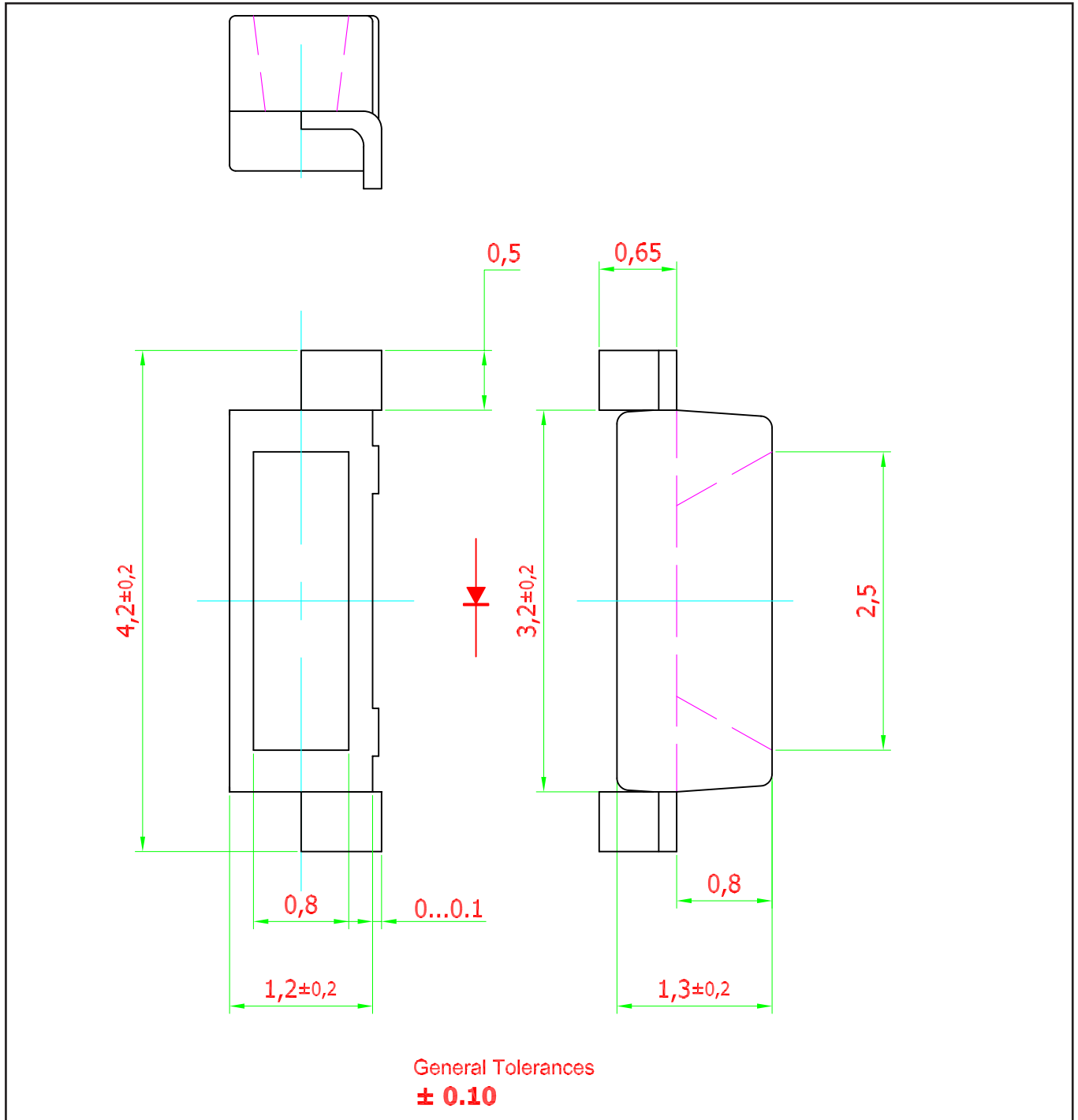
Relative Intensity Vs Wavelength



Radiation Pattern



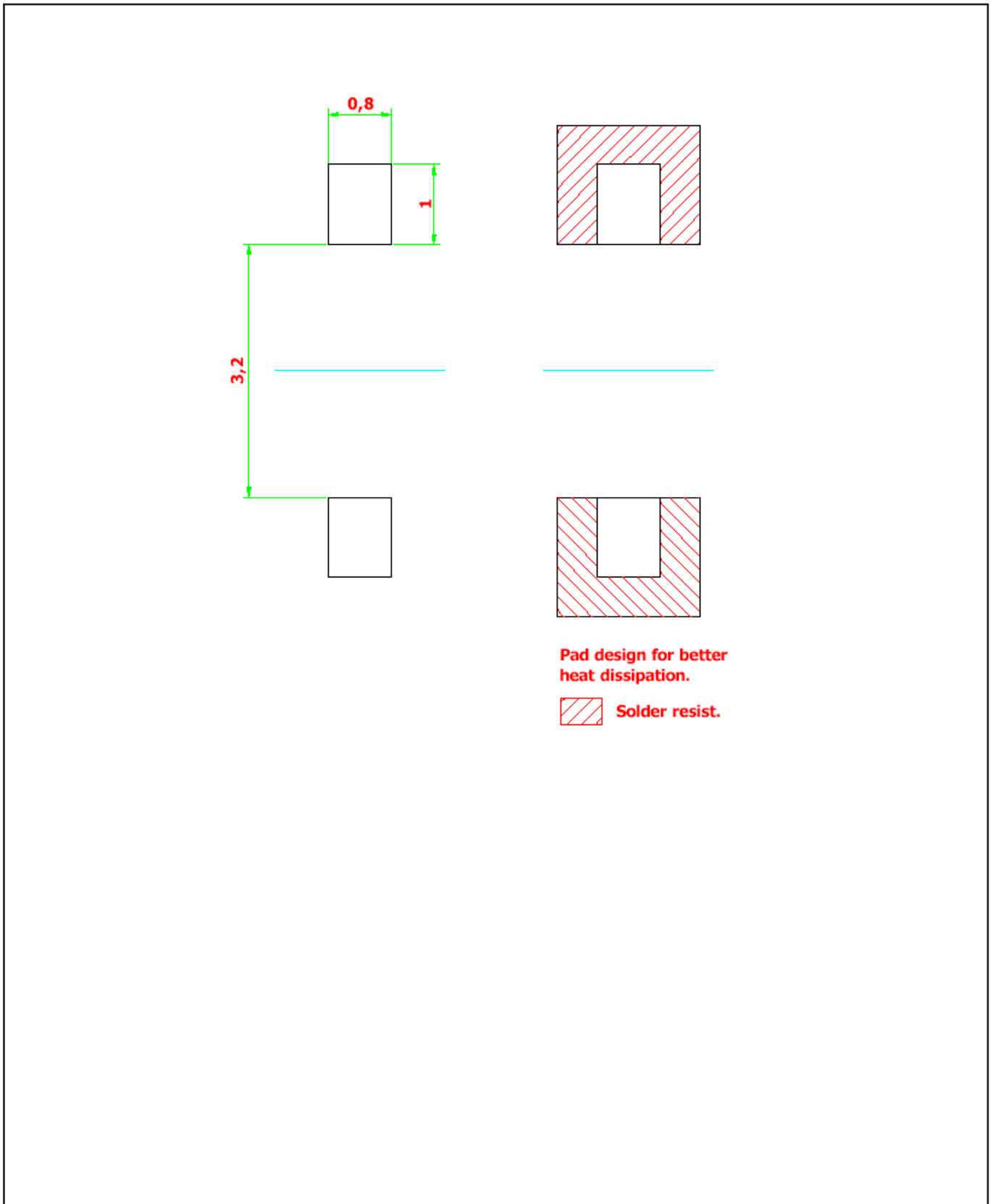
DomiLED™ • InGaN : DSx-DSS Package Outlines



Material

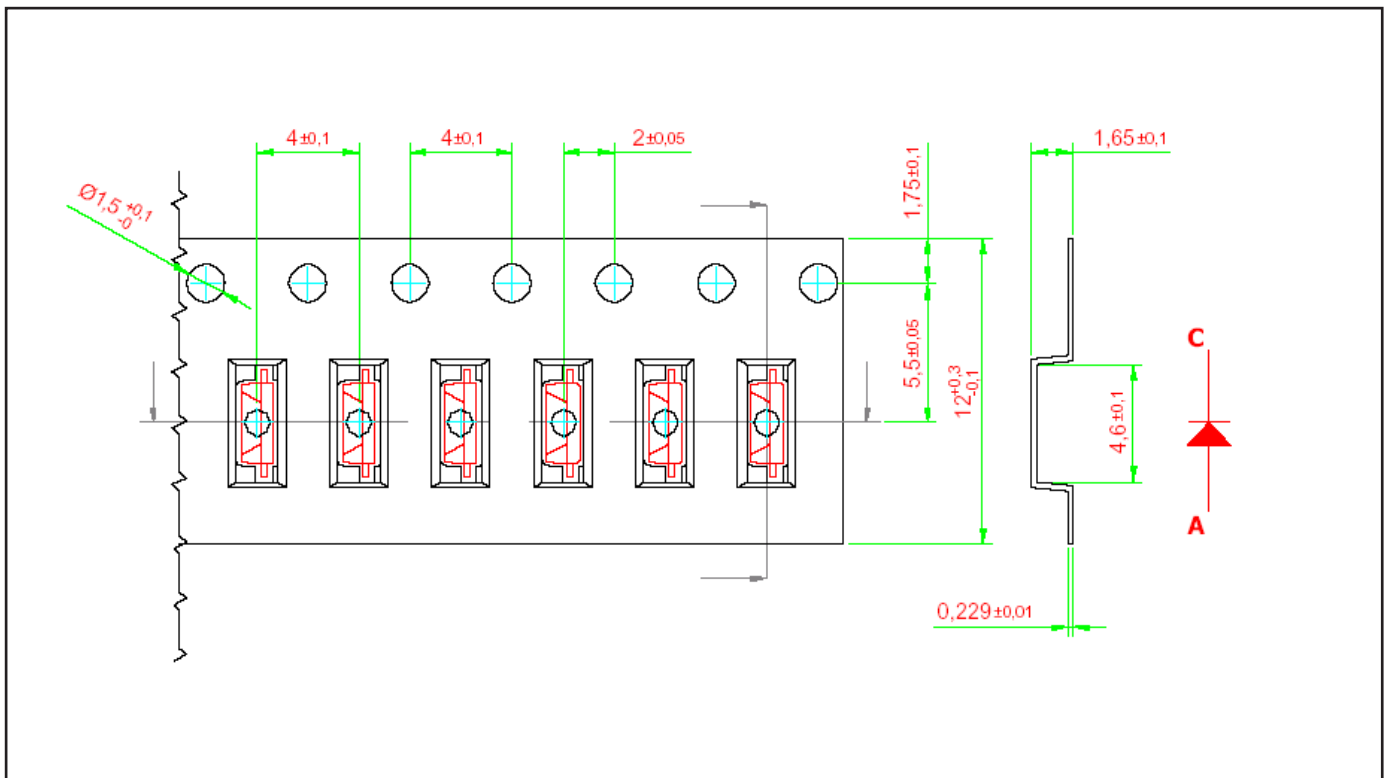
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn-Sn Plating

Recommended Solder Pad

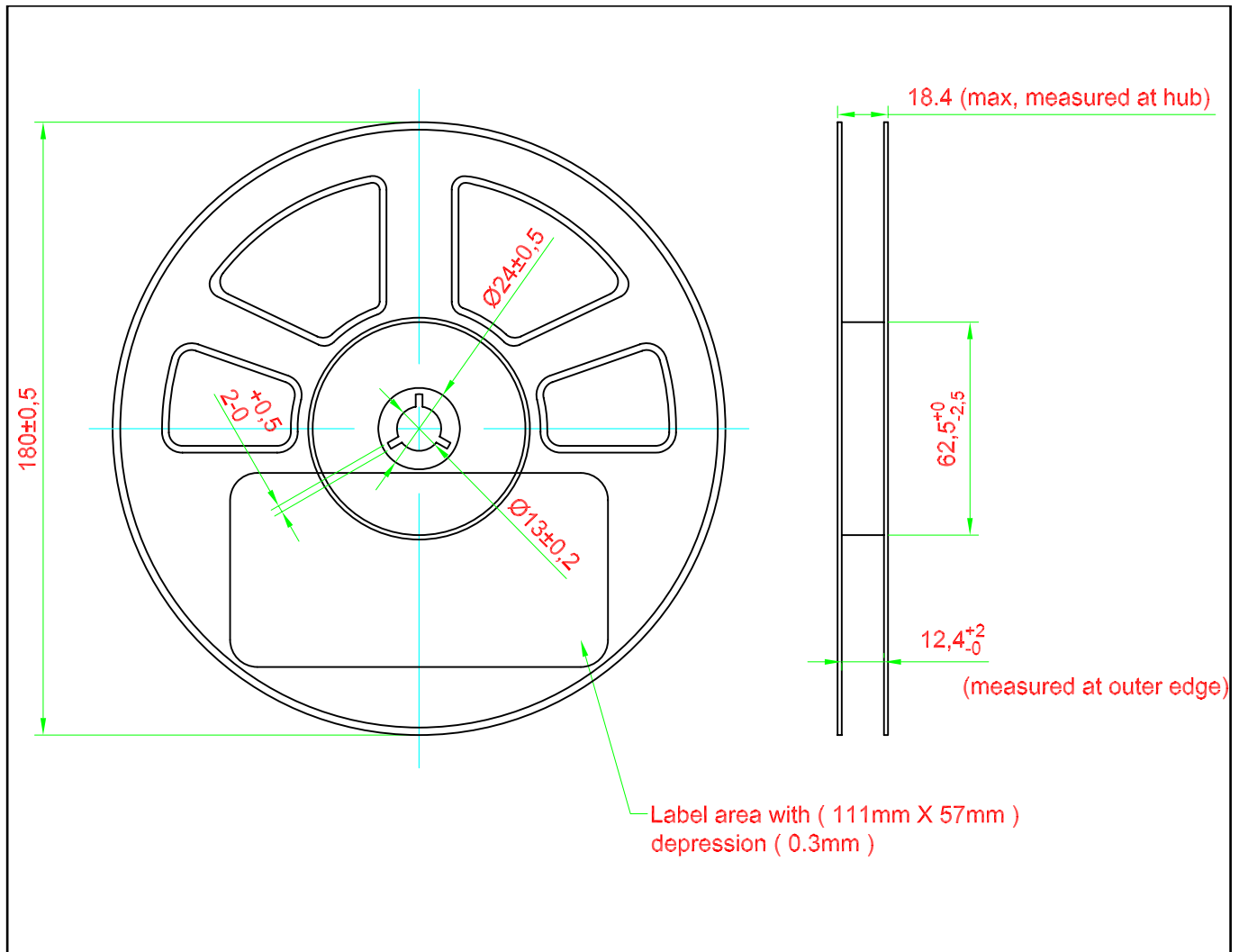


Taping and orientation

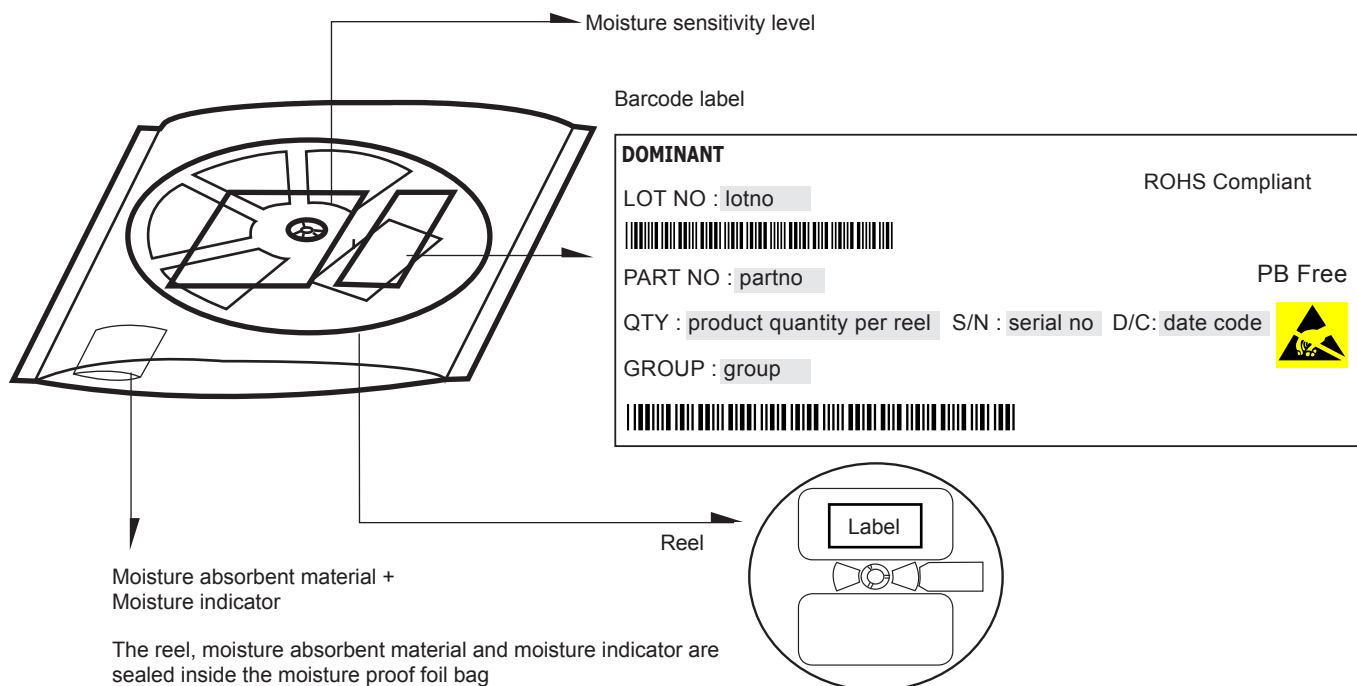
- Reels come in quantity of 2500 units.
- Reel diameter is 180 mm.



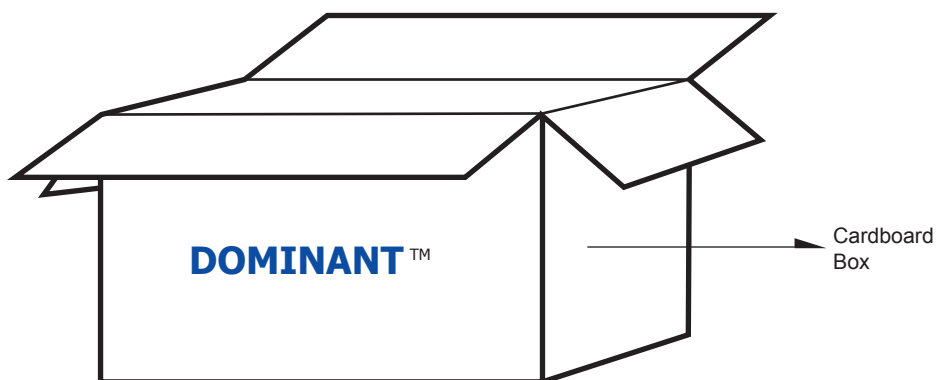
Packaging Specification



Packaging Specification



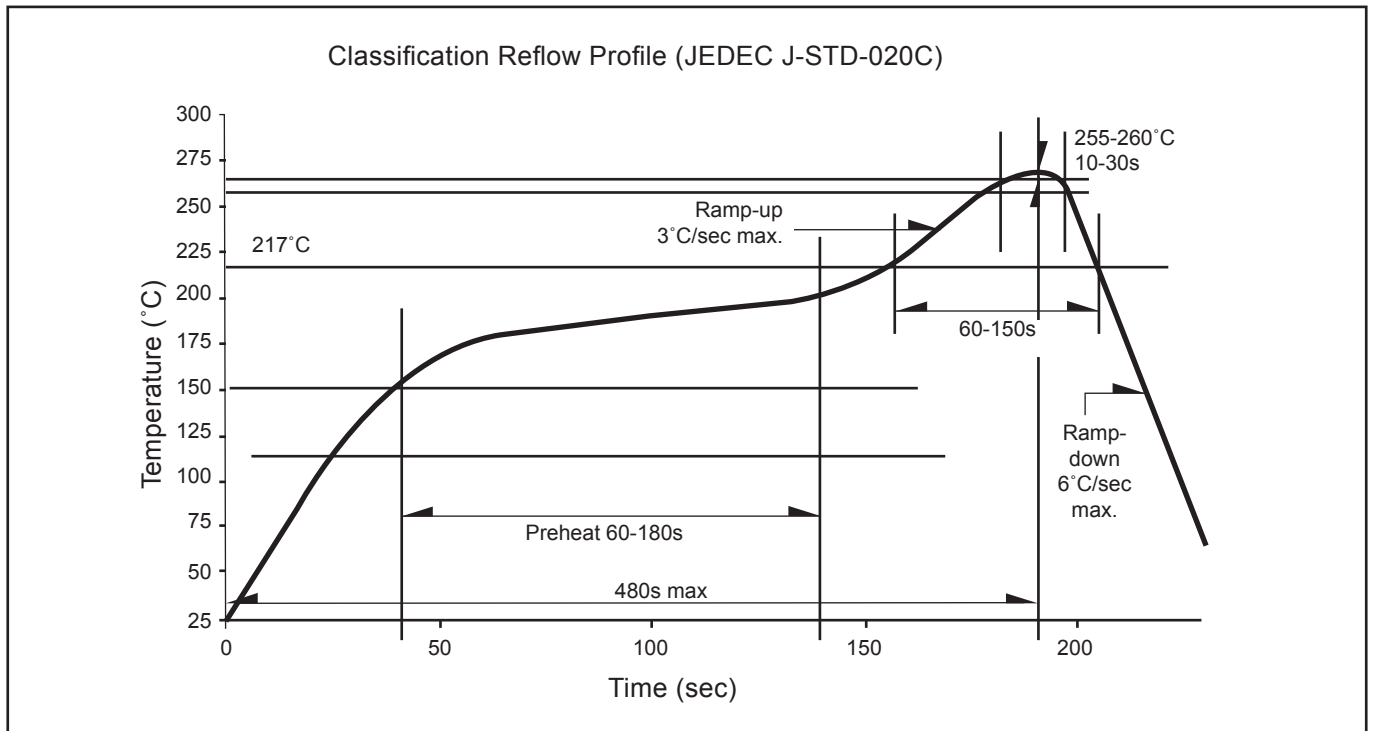
Average 1pc Right Angle DomiLED		1 completed bag (2500pcs)
Weight (gram)	0.034	190 ± 10



For Right Angle 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	37,500 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	240,000 MAX

Recommended Pb-free Soldering Profile



Revision History

Page	Subjects	Date of Modification
-	Initial release	04 Aug 2010
1, 9	- Update product photo - Error in carrier tape	21 Jun 2012
1	Update Application	13 Sep 2013
2	Add new partno: DST-DSS-WX1-1 Add Thermal Resistance	25 Oct 2013

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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