DOMINANT™
Opto Technologies
Innovating Illumination

DATA SHEET:

Right Angle DomiLED™

AlInGaP : DSx-ASS

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 sideway illumination.
> 120° viewing angle.
> Small package outline.
> Qualified according to JEDEC moisture sensitivity Level 2.
> Compatible to IR reflow soldering.
> Environmental friendly; RoHS compliance.
> Compliance to automotive standard; AEC-Q101.
> Superior corrosion resistant.



Applications:

> Automotive:
  Interior applications, eg: switches, telematics, climate control system, dash board, etc.
> Consumer Appliances: Backlighting illumination as in PDAs.

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Optical Characteristics at Tj=25˚C

Part Ordering Number	Color	Viewing Angle˚	Luminous Intensity @ IF = 2mA IV (mcd) Min.	Typ.	Max.
DSS-ASS-J2L1-1	Super red, 632nm	120	5.60	9.00	14.00
DSA-ASS-LM2-1	Amber, 615nm	120	11.20	18.00	28.50
DSY-ASS-LM2-1	Yellow, 587nm	120	11.20	18.00	28.50
DSG-ASS-H2K1-1	Green, 570nm	120	3.55	4.50	9.00

NOTE
1. All part number above comes in a quantity of 2500 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 Min. (V)	Typ. (V)	Max. (V)	Vr @ Ir = 10uA Min. (V)
DSx-ASS	1.7	2.0	2.3	12

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	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)	50	mW

Wavelength Grouping at Tj=25˚C

Color	Group	Wavelength distribution (nm)
DSS; Super red	Full	625 - 640
DSA; Amber	Full	610 - 621
	W	610 - 615
	X	615 - 621
DSY; Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594
DSG; 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 ± 1nm

Luminous Intensity Group at Tj=25˚C

Brightness Group	Luminous Intensity IV (mcd)
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

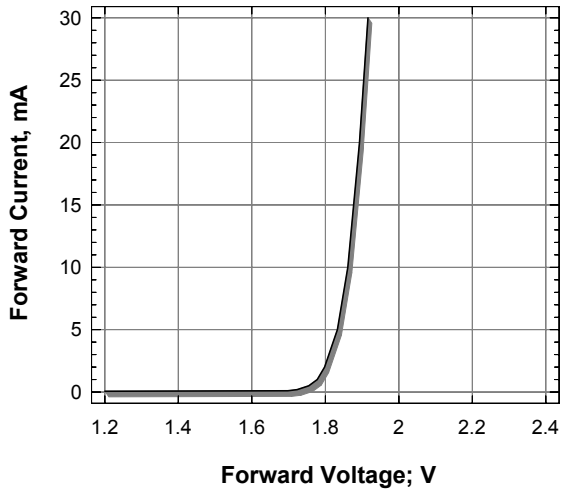
Luminous intensity is measured with an accuracy of ± 11%.

Vf Binning (Optional)

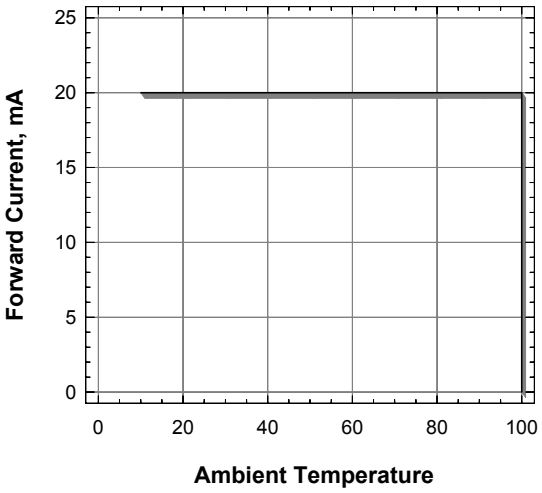
Vf Bin	Forward Voltage (V)
VA	1.60 ... 1.80
VB	1.80 ... 2.00
VC	2.00 ... 2.20

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.

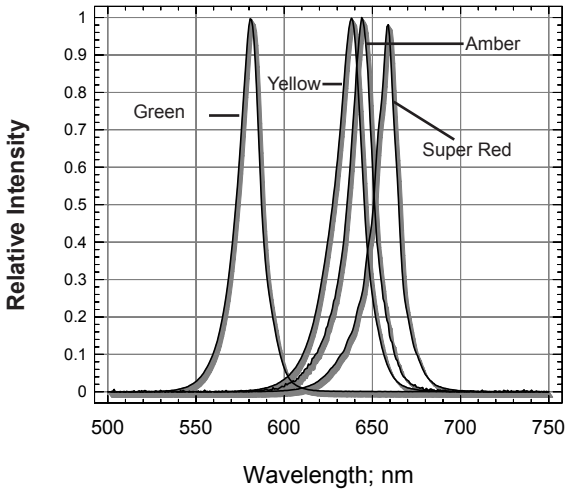
Forward Current Vs Forward Voltage



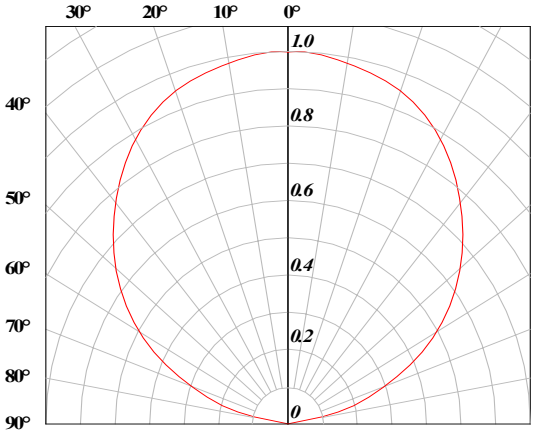
Forward Current Vs Ambient Temperature



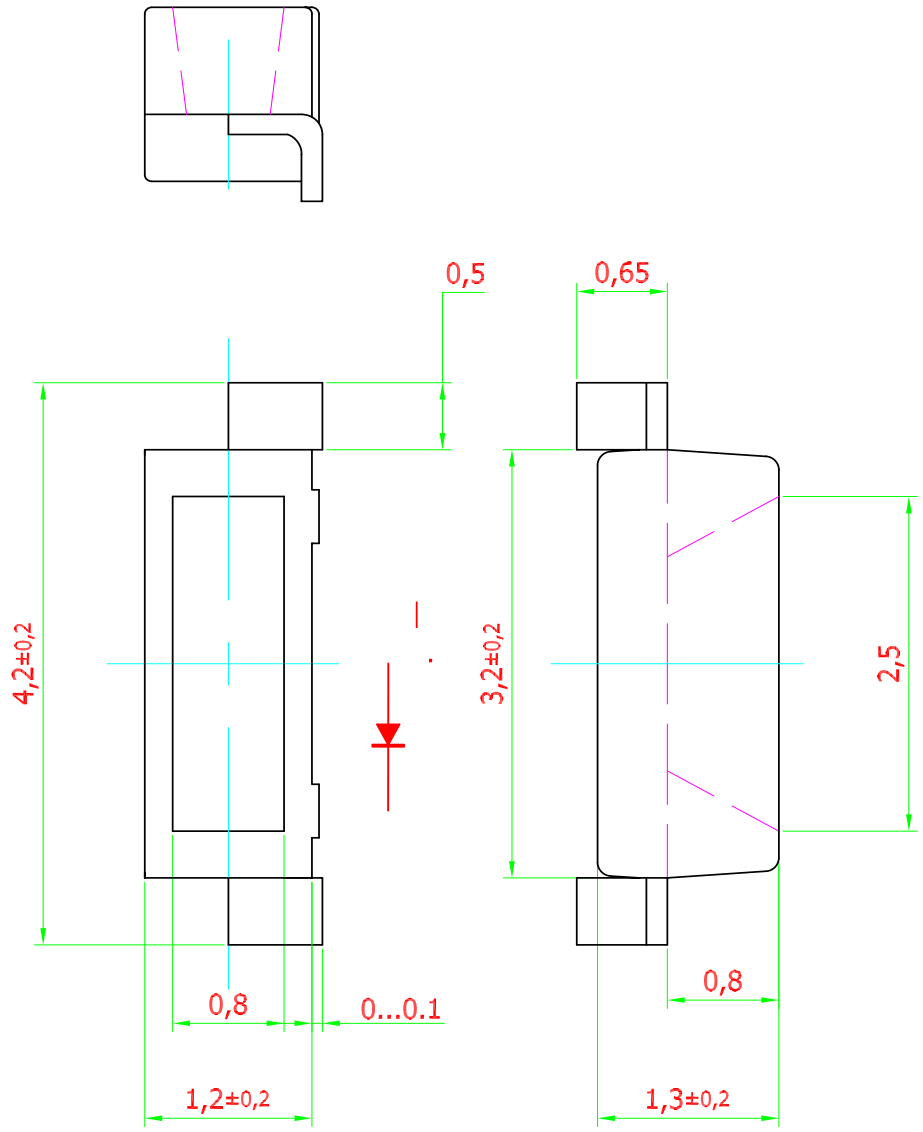
Relative Intensity Vs Wavelength



Radiation Pattern



DomiLED™ • AlInGaP : DSx-ASS Package Outlines

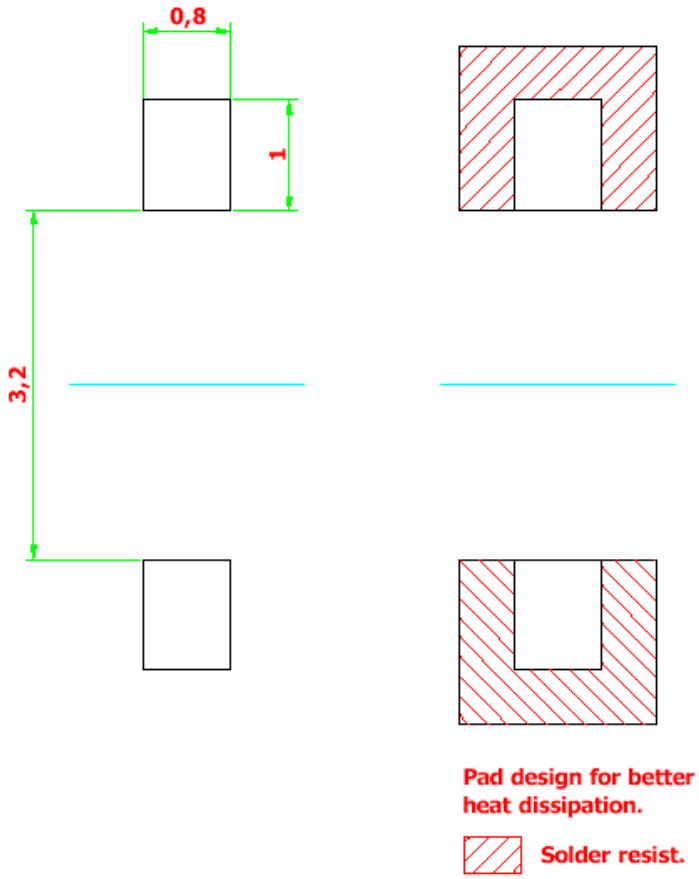


Notes: Primary thermal path is through Cathode lead of LED package

Material

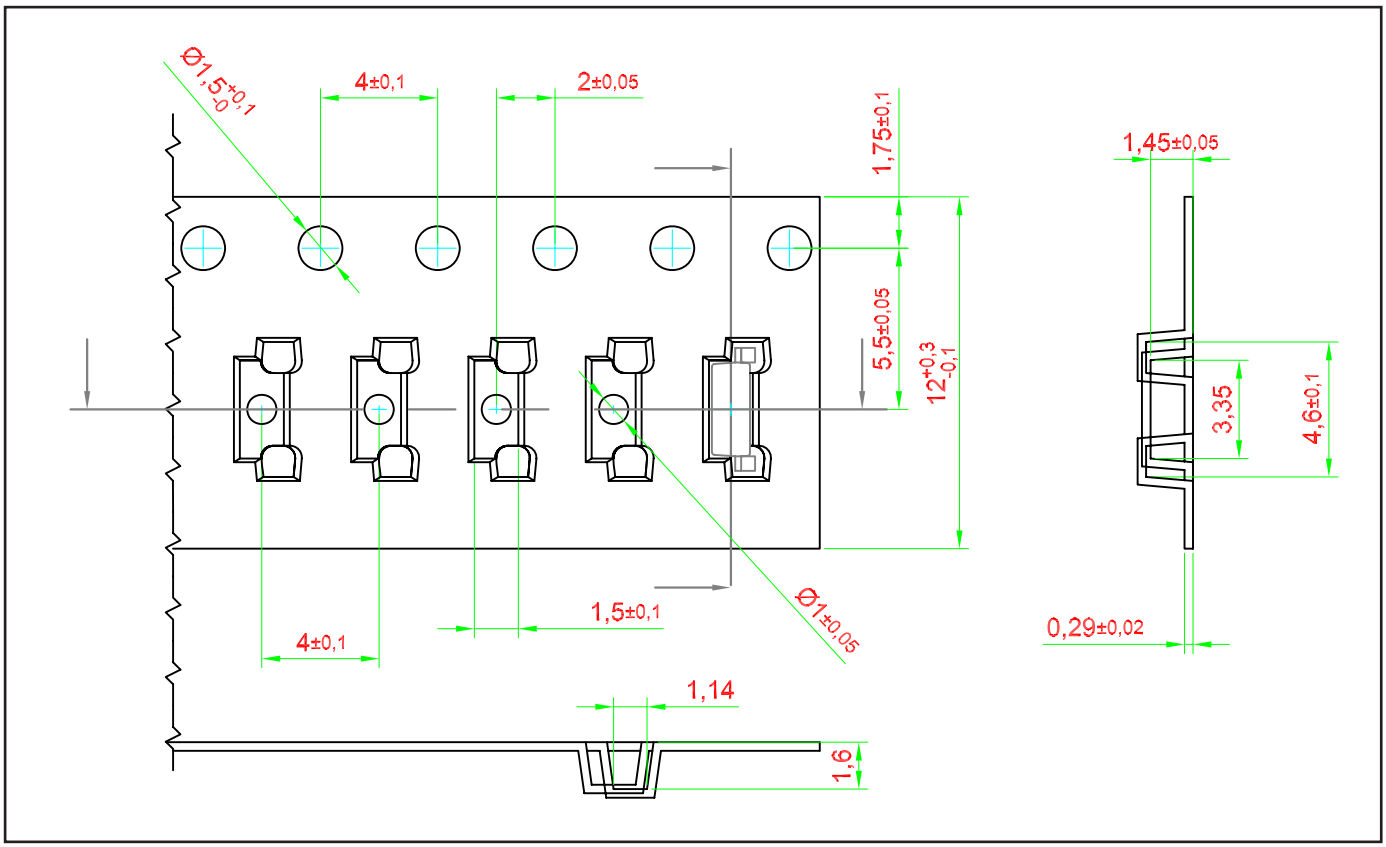
	Material
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Epoxy
Soldering Leads	Sn-Sn Plating

Recommended Solder Pad

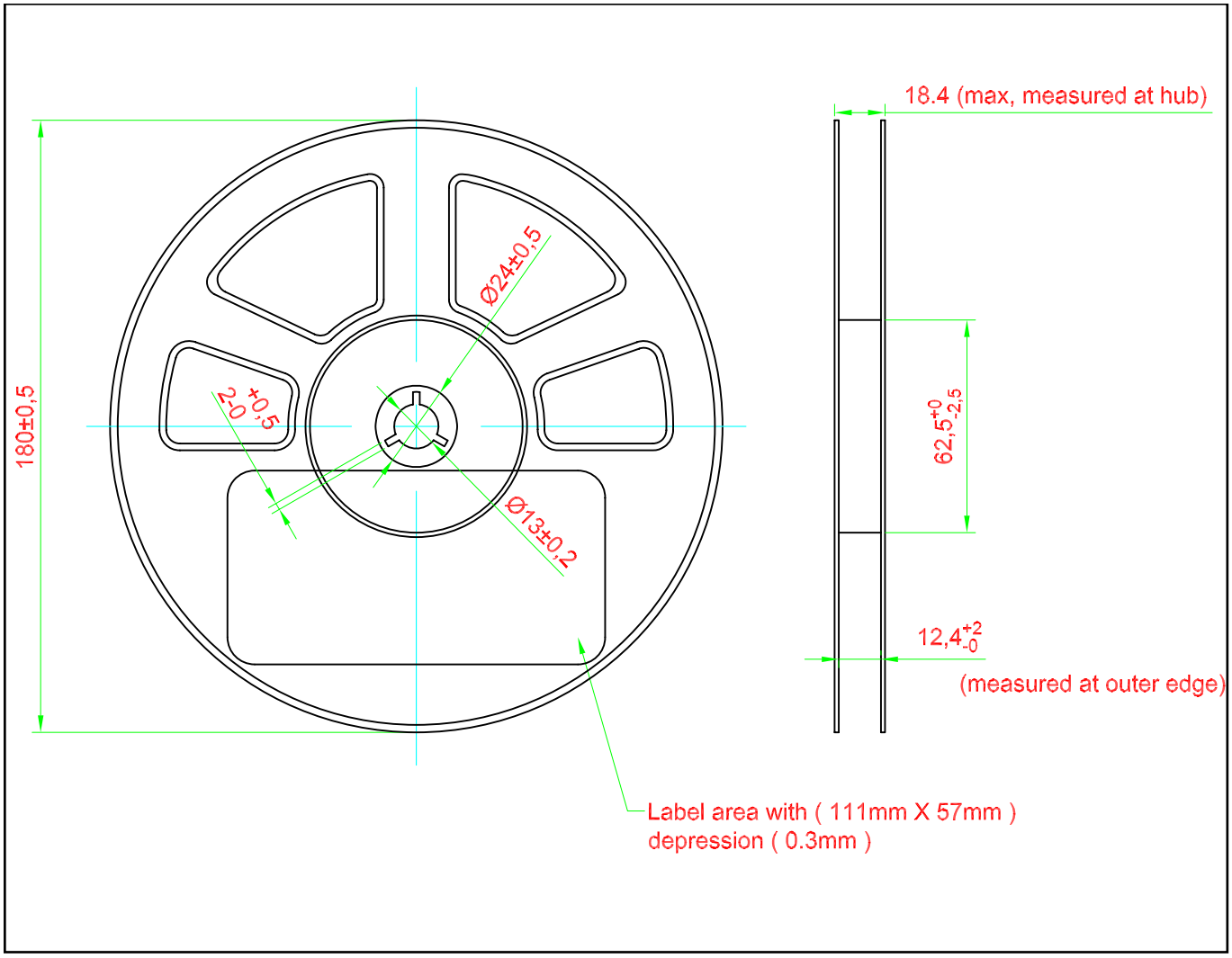


Taping and orientation

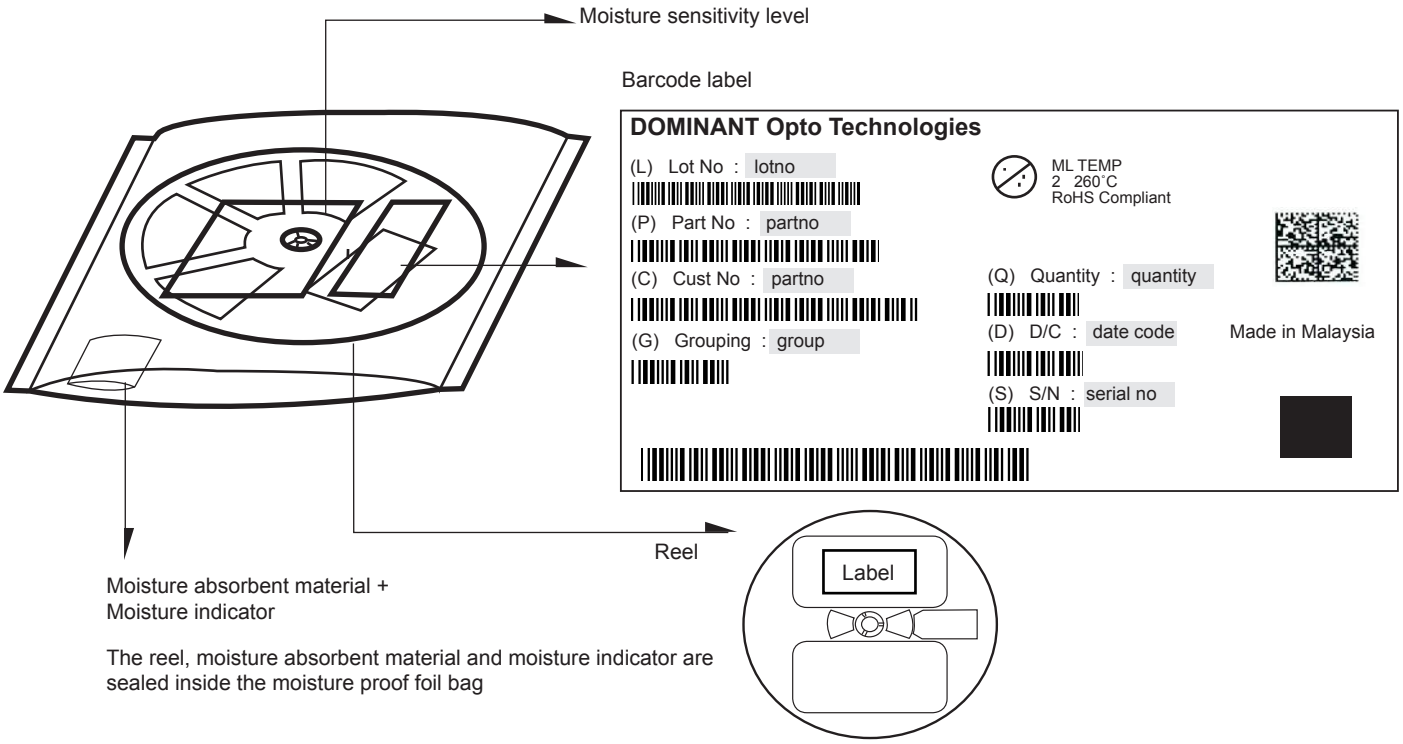
- Reels come in quantity of 2500 units.
- Reel diameter is 180 mm.



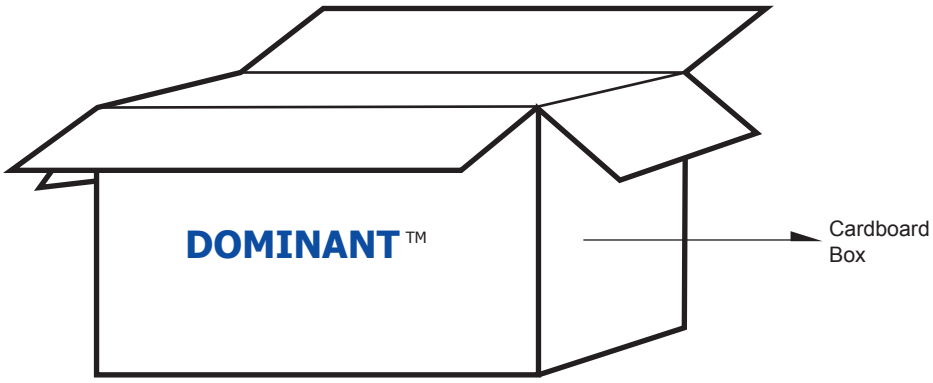
Packaging Specification



Packaging Specification



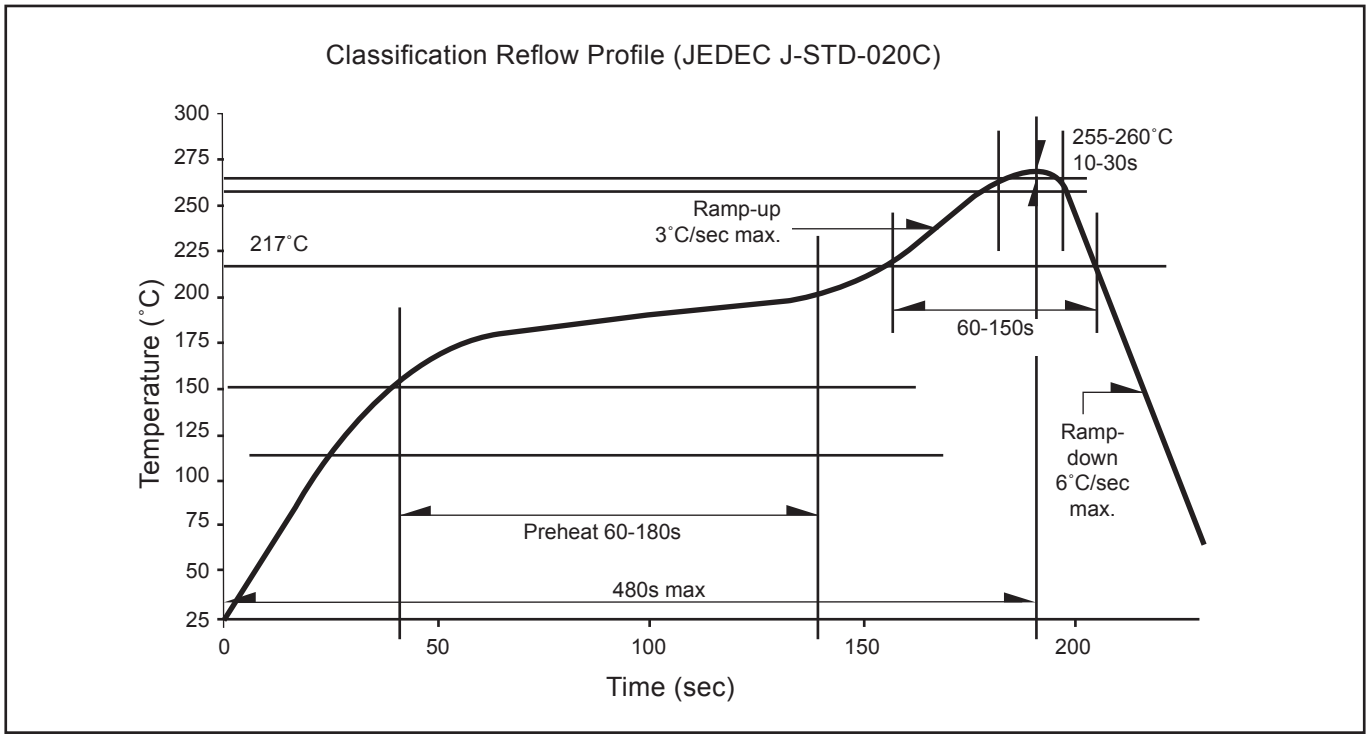
	Average 1pc Right Angle DomiLED	1 completed bag (2500pcs)
Weight (gram)	**0.010**	**240 ± 10**



For Right Angle DomiLED™

Cardboard Box Size	Dimensions (mm)	Empty Box Weight (kg)	Reel / Box
Super Small	325 x 225 x 190	0.38	7 reels MAX
Small	325 x 225 x 280	0.54	11 reels MAX
Medium	570 x 440 x 230	1.46	48 reels MAX
Large	570 x 440 x 460	1.92	96 reels MAX

Recommended Pb-free Soldering Profile



Revision History

Page	Subjects	Date of Modification
-	Initial release	15 Jun 2010
1, 9	- Update product photo - Error in carrier tape	21 Jun 2012
6	Typo error on package outline	16 Oct 2013
1, 4, 6	Update Features Add Vf Binning Add Notes in Package Outline	05 Oct 2015
1, 8, 10	Add Features Update Carrier Tape Update Packaging Specification	10 Mar 2016

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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