

Lamp Type LED - 5mm Oval

Synonymous with function and performance, the 5mm Oval LED has superior performance in outdoor applications due to its well-defined radiation pattern and wide viewing angle. These lamps are made with an advanced optical grade epoxy, offering superior high temperature and high moisture resistance performance in outdoor signal and sign applications

Features:

- > High brightness tinted clear lamp.
- > 70° x 35° viewing angle.
- > Superior resistance to moisture.
- > Suitable for TTW soldering.

Applications:

- > Full color signs
- > Outdoor displays/signs



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ 20mA IV (mcd)		
			Min.	Typ.	Max.
L6T-E73C0-Y2Z-1	True Green, 530nm	70/35	3550.0	5000.0	7150.0
L6B-E73C0-WX1-1	Blue, 470nm	70/35	1125.0	1400.0	2240.0

NOTE

- Luminous intensity is measured with an accuracy of ± 15%.
- Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each pack.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If = 20mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
L6x-E73xx	2.9	3.3	3.8	5

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	25	mA
Peak pulse current; (tp ≤ 10μs, Duty cycle = 0.10)	100	mA
Reverse voltage ; Ir (max) = 10μA.	5	V
ESD threshold voltage (HBM)	500	V
LED junction temperature	120	°C
Operating temperature	-40 ... +95	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	95	mW

Wavelength Grouping at T_j=25°C

Color	Group	Wavelength distribution (nm)
L6T; True Green	Full	520 - 535
	A	520 - 525
	B	525 - 530
	C	530 - 535
L6B; Blue	Full	465 - 475
	A	465 - 470
	B	470 - 475

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

Luminous Intensity Group at T_j=25°C

Brightness Group	Luminous Intensity @ IV (mcd)
W1	1125.0...1400.0
W2	1400.0...1800.0
X1	1800.0...2240.0
Y2	3550.0...4500.0
Z1	4500.0...5600.0
Z2	5600.0...7150.0

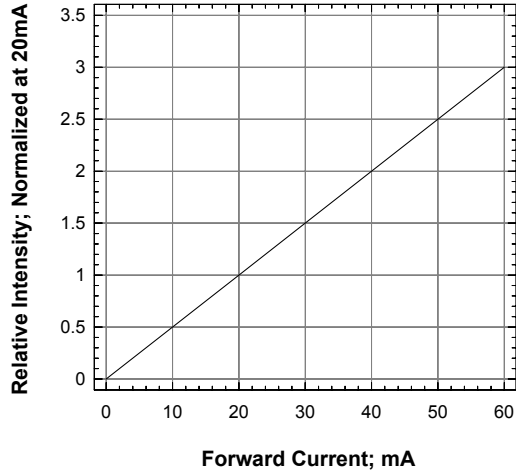
Luminous intensity is measured with an accuracy of ± 15%.

V_f Binning (Optional)

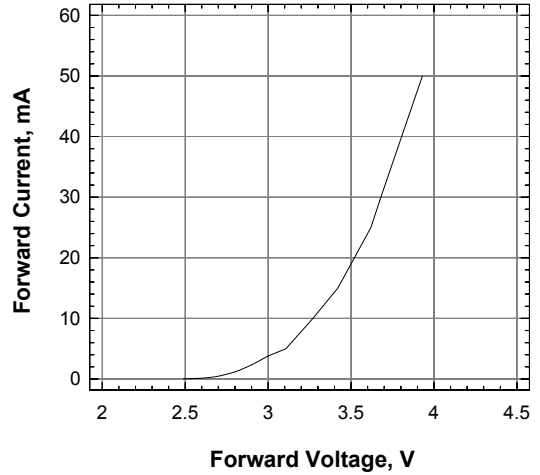
V _f Bin @ 20mA	Forward Voltage (V)
V7	2.80 ... 3.00
V8	3.00 ... 3.20
V9	3.20 ... 3.40
V10	3.40 ... 3.60
V11	3.60 ... 3.80

Forward voltage, V_f is measured with an accuracy of ± 0.1 V. Parts with the V_f binning option will be defined as L6x-E73xx-xxxx-x-Vx. Please consult sales and marketing for special part number to incorporate V_f binning.

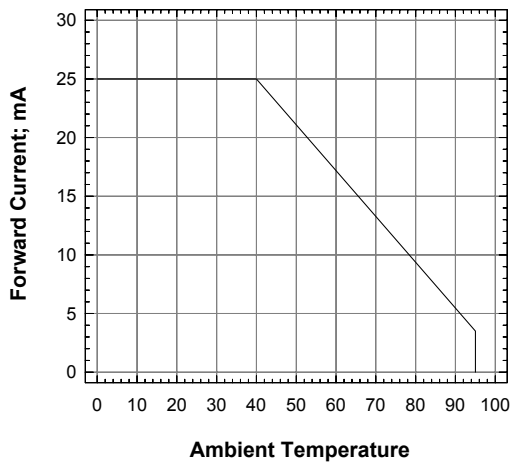
Relative Intensity Vs Forward Current



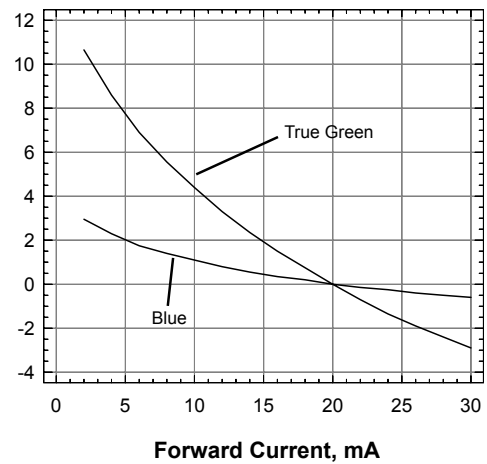
Forward Current Vs Forward Voltage



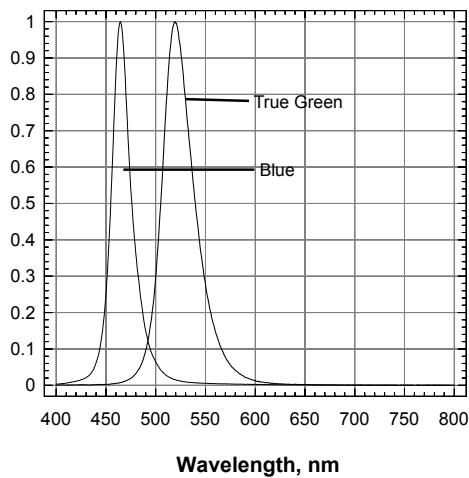
Maximum Current Vs Ambient Temperature



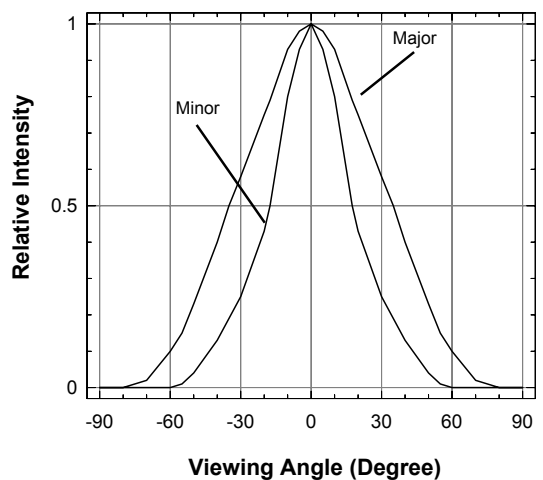
Dominant Wavelength Shift Vs Forward Current



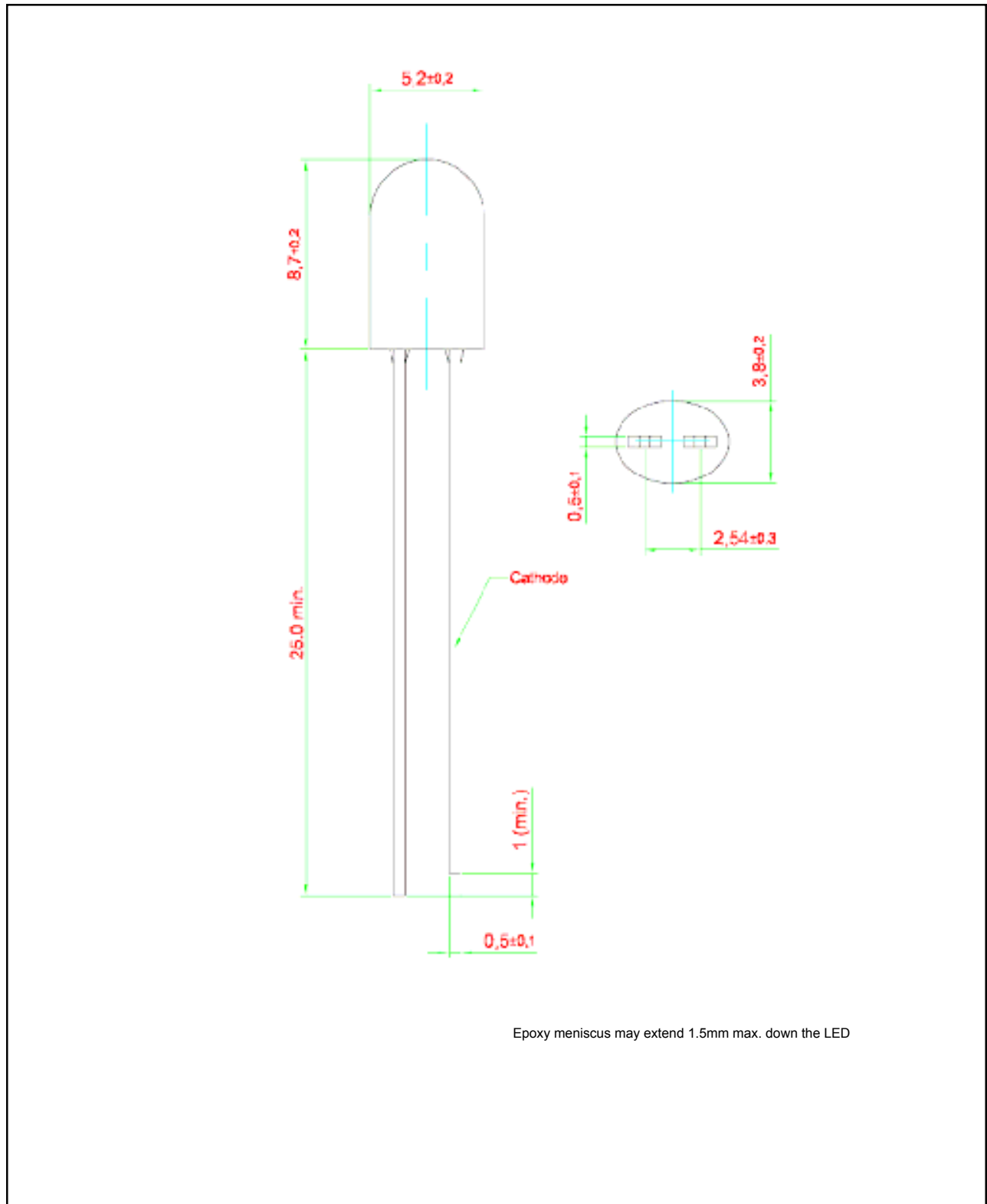
Relative Intensity Vs Wavelength



Radiation Pattern

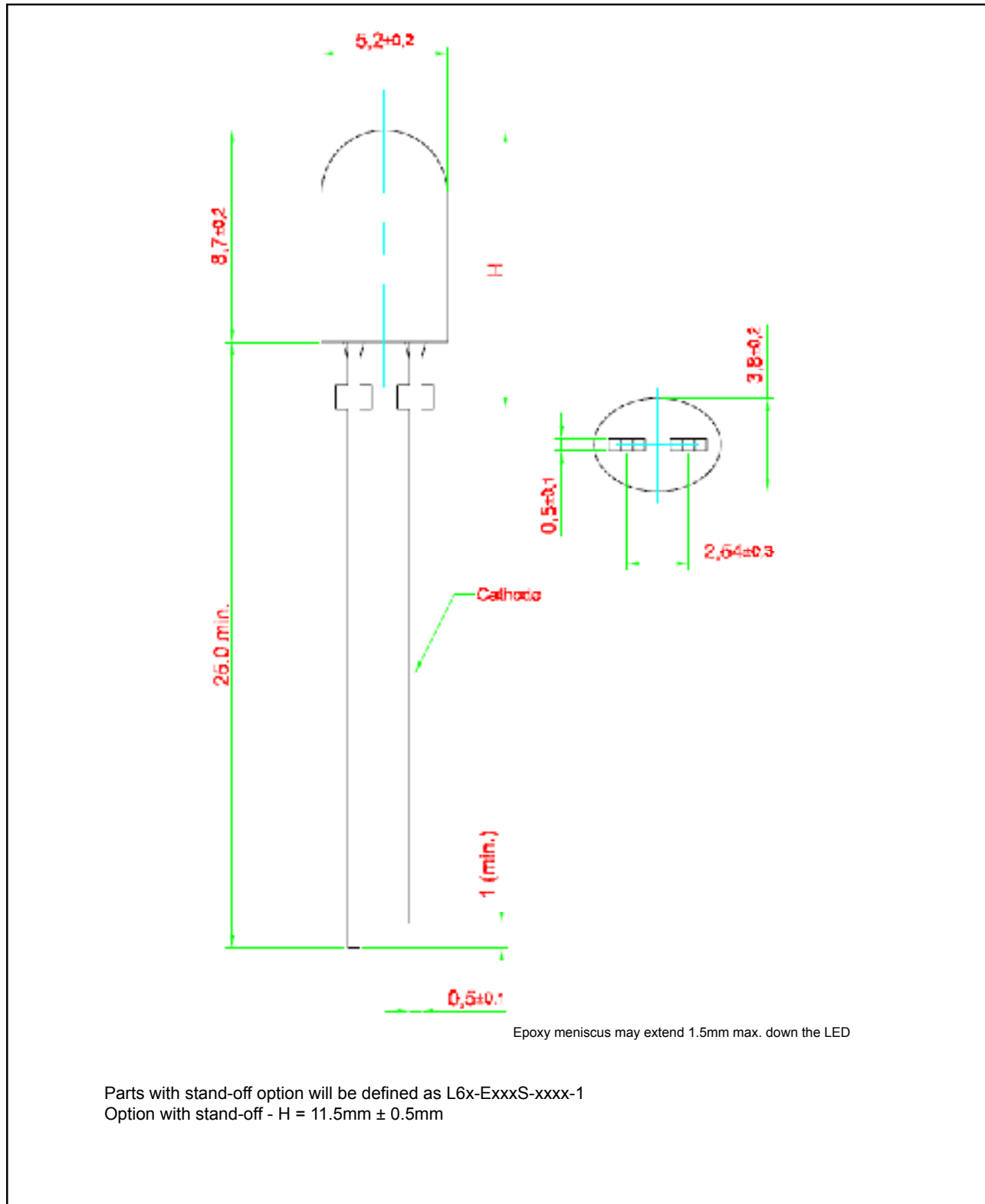


5mm Oval Lamp • InGaN : Package Outlines



Epoxy meniscus may extend 1.5mm max. down the LED

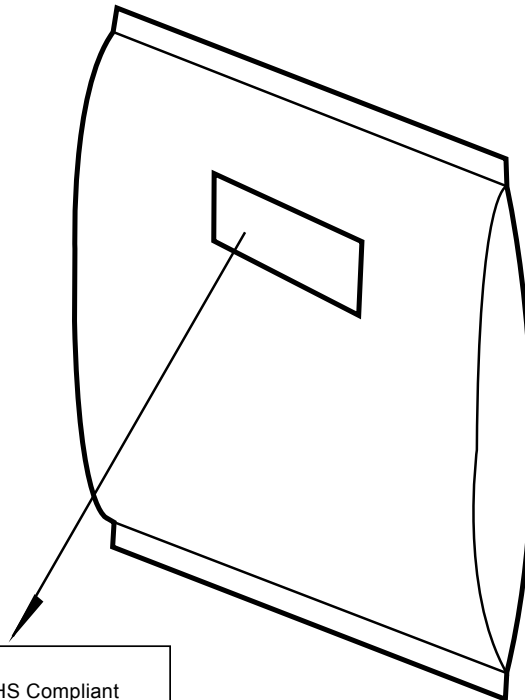
5mm Oval Lamp • InGaN : Package Outlines






Packaging Specification

1. Loose pack of 500pcs/pack: Lxx-xxxxxx-xxxx-x-x-0

	Average 1pc 5mm Lamp	1 completed pack (500pcs)
Weight (gram)	0.29	155 ± 10

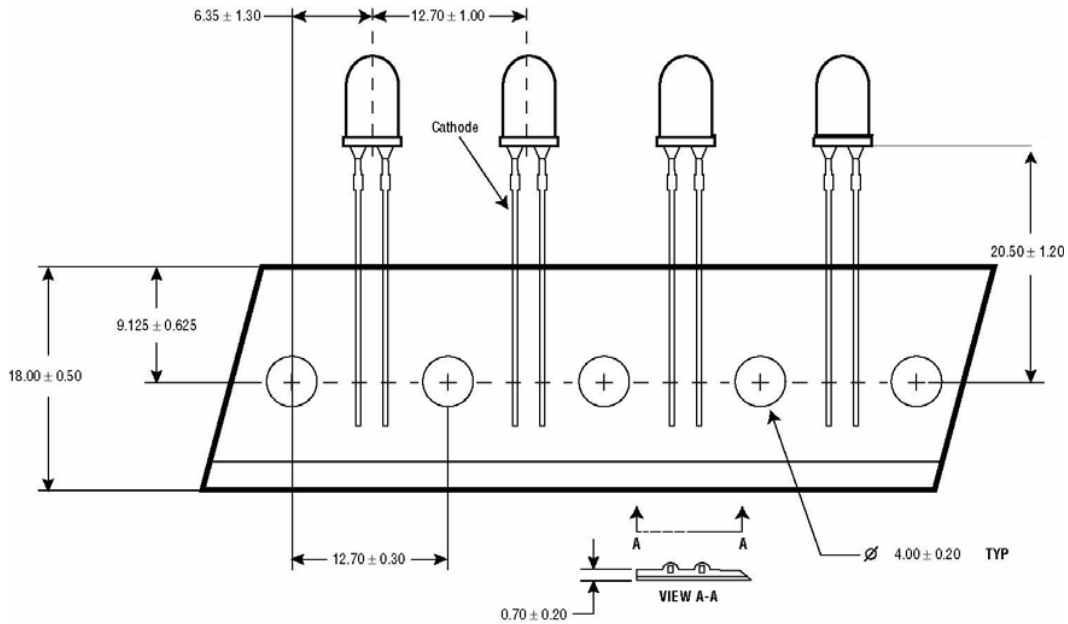


Barcode label

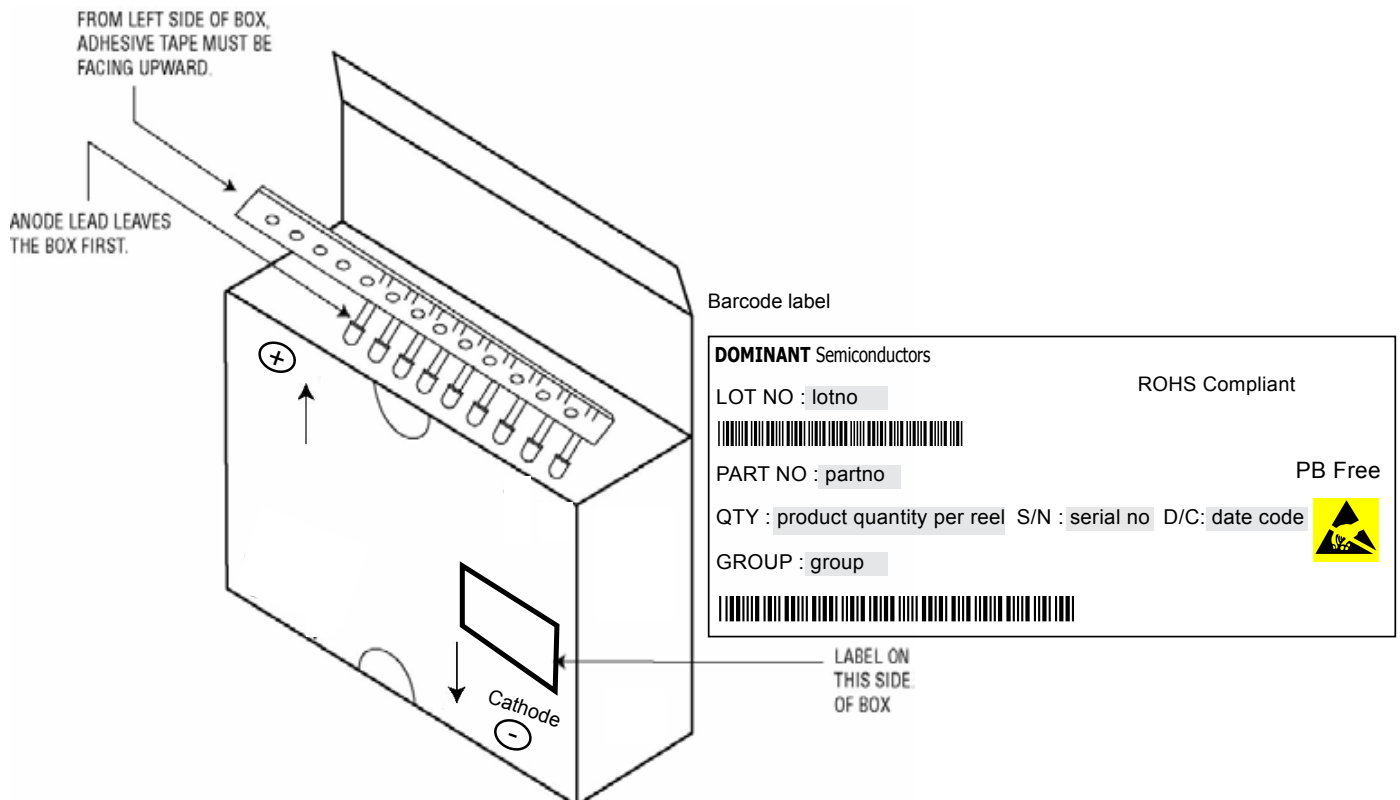
DOMINANT Semiconductors		ROHS Compliant
LOT NO : lotno		
		
PART NO : partno		PB Free
QTY : product quantity per reel	S/N : serial no	D/C: date code
GROUP : group		
		

Packaging Specification

2. Ammopack: Lxx-xxxxx-xxxx-x-x-A

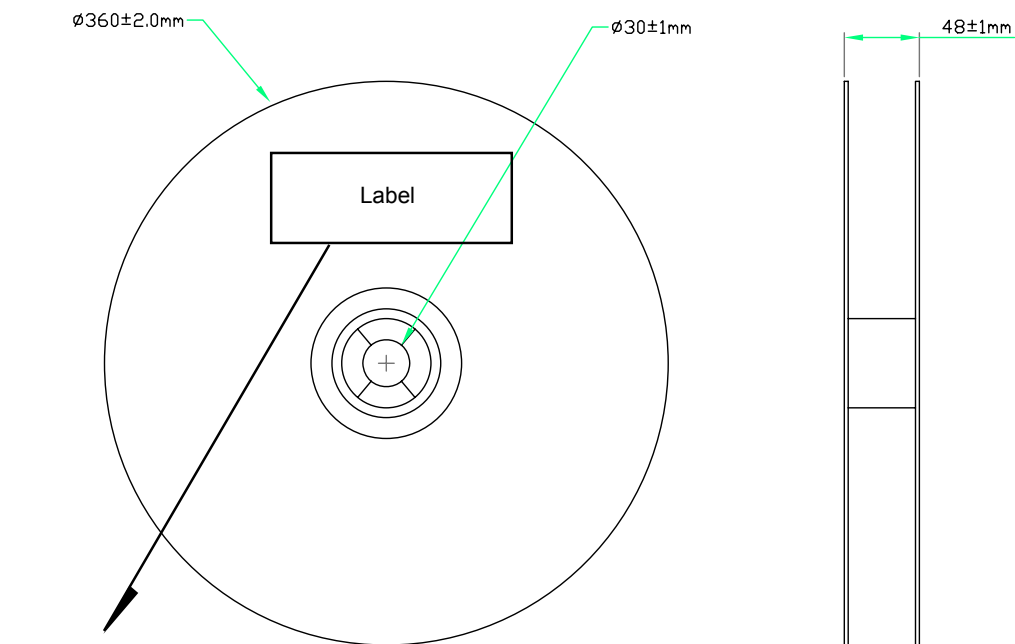


Average 1pc 5mm Lamp (g)	Box Dimensions (mm)	Empty Box Weight (kg)	Quantity / Box (pcs)	1 Completed Box With Units (kg)
0.29	335 x 235 x 48	0.14	2,000	0.95 ± 10



Packaging Specification

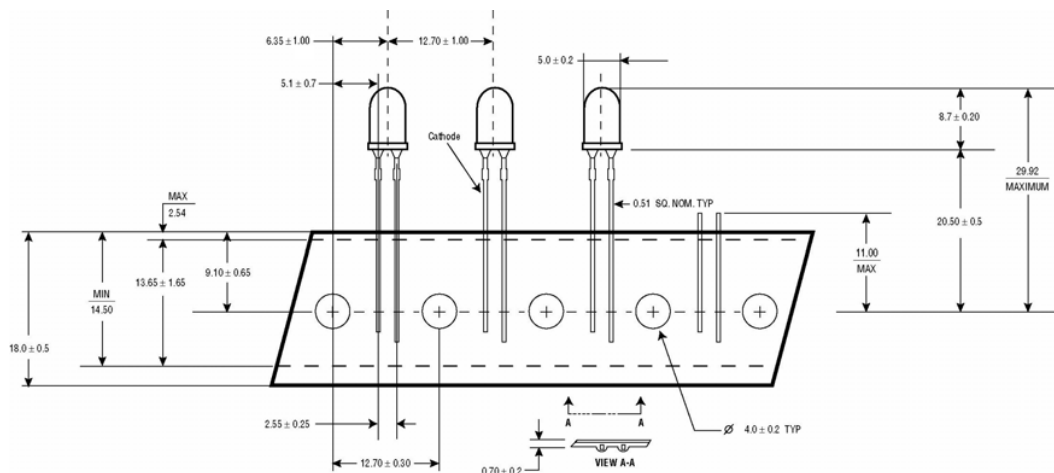
3. Reel: Lxx-xxxxx-xxxx-x-x-T



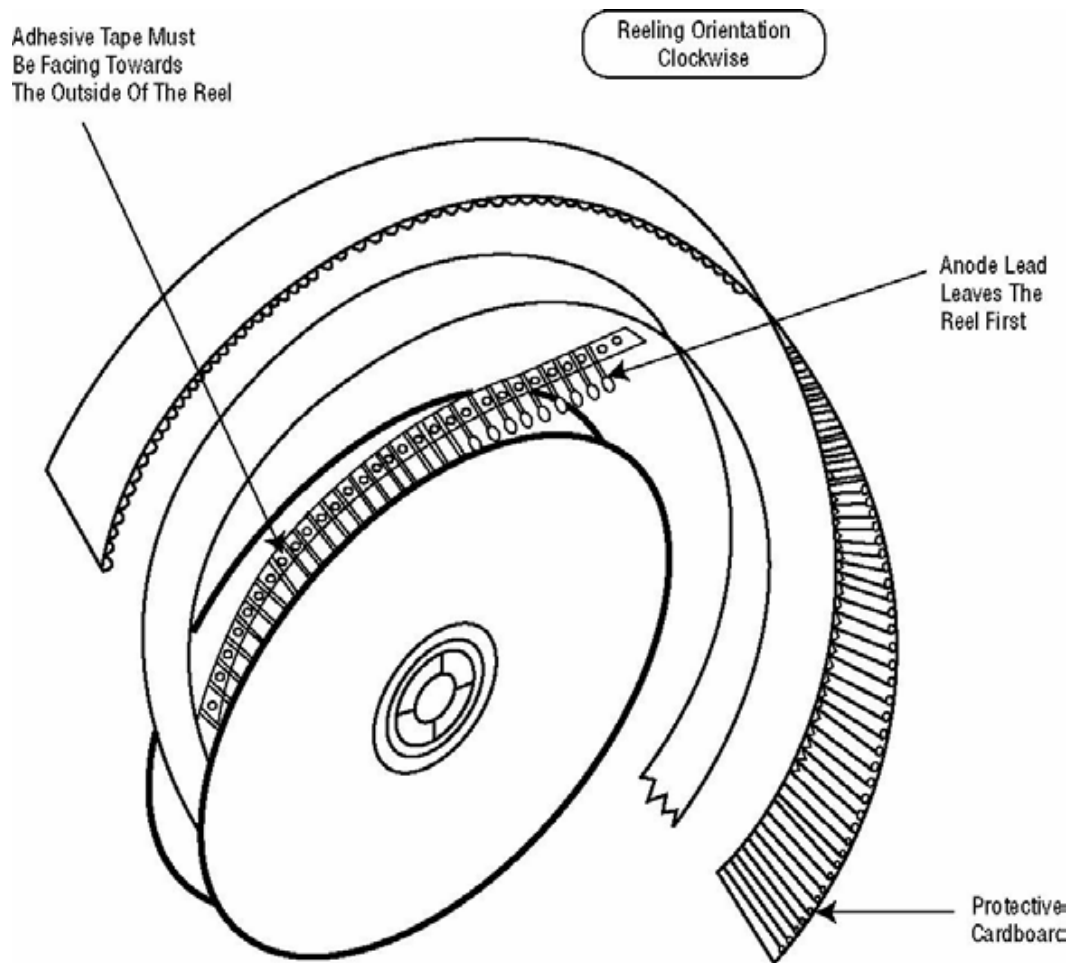
Barcode label

DOMINANT Semiconductors		ROHS Compliant
LOT NO : lotno		
PART NO : partno		PB Free
QTY : product quantity per reel	S/N : serial no	D/C: date code
GROUP : group		

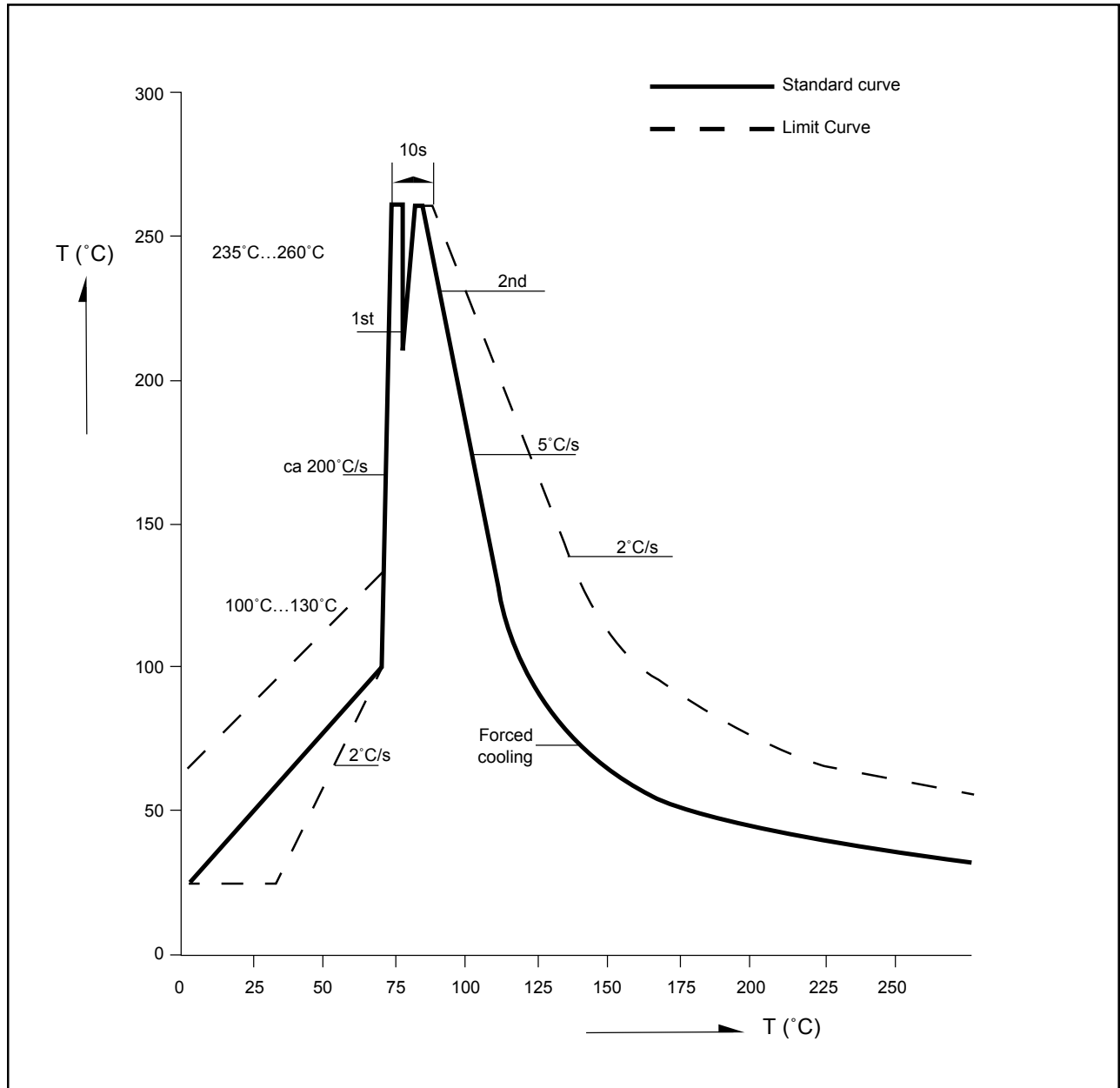
Average 1pc 5mm Lamp (g)	Empty Reel Weight (kg)	Quantity / Reel (pcs)	1 Completed Reel (kg)
0.29	0.39	1,300	0.95 ± 10



Packaging Specification



Recommended TTW Soldering Profile (acc. to CECC 00802)



Revision History

Page	Subjects	Date of Modification
-	Initial Release	20 Apr 2009
3	Add Vf binning option	05 May 2009
3	Typo error on luminous intensity --> Y2 bin	13 Jul 2009

NOTE

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