

Lamp Type LED - 3mm

This 3mm LED offer superior light output for excellent readability in sunlight. These lamps are offering stable light output over long period of time and high-moisture-resistance performance in lighting and illumination applications due to the optical-grade epoxy.

Features:

- > High brightness LED lamp.
- > Superior resistance to moisture
- > Suitable for TTW soldering.

Applications:

- > Indicators
- > Outdoor displays/signs



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ 5mA IV (mcd)		
			Min.	Typ.	Max.
L3W-U60E0-R2T1-1	White	60	140.0	224.0	355.0
L3W-U60E0-S2U1-1	White	60	224.0	355.0	560.0

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

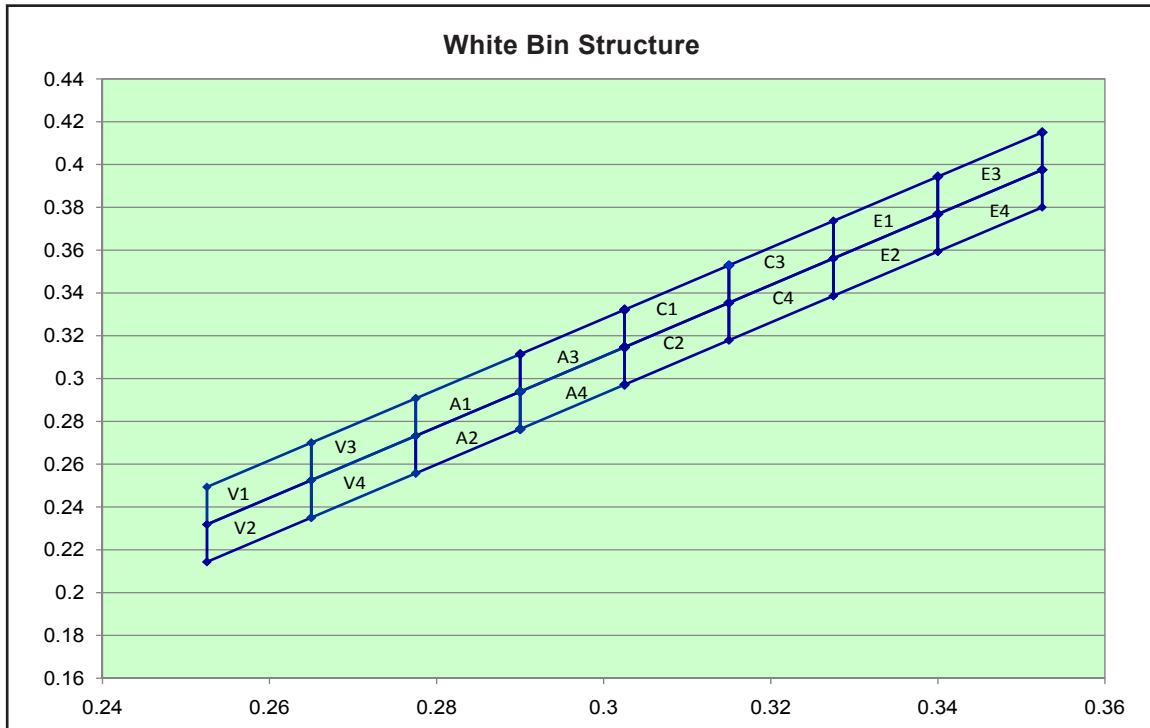
Part Number	Vf @ If = 5mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
L3W-U60E0	2.6	2.9	3.4	5

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	20	mA
Peak pulse current; (tp ≤ 100µs, Duty cycle = 0.10)	100	mA
Reverse voltage ; Ir (max) = 10µA.	5	V
ESD threshold (HBM)	2000	V
LED junction temperature	120	°C
Operating temperature	-40 ... +85	°C
Storage temperature	-40 ... +85	°C
Power dissipation (at room temperature)	85	mW

Wavelength Grouping



Chromaticity coordinate groups are measured with an accuracy of ± 0.01 .

Bin		1	2	3	4
V1	Cx	0.2525	0.2650	0.2650	0.2525
	Cy	0.2318	0.2525	0.2700	0.2493
V2	Cx	0.2525	0.2650	0.2650	0.2525
	Cy	0.2143	0.2350	0.2525	0.2318
V3	Cx	0.2650	0.2775	0.2775	0.2650
	Cy	0.2525	0.2732	0.2907	0.2700
V4	Cx	0.2650	0.2775	0.2775	0.2650
	Cy	0.2350	0.2557	0.2732	0.2525
A1	Cx	0.2775	0.2900	0.2900	0.2775
	Cy	0.2732	0.2939	0.3114	0.2907
A2	Cx	0.2775	0.2900	0.2900	0.2775
	Cy	0.2557	0.2764	0.2939	0.2732
A3	Cx	0.2900	0.3025	0.3025	0.2900
	Cy	0.2939	0.3146	0.3321	0.3114
A4	Cx	0.2900	0.3025	0.3025	0.2900
	Cy	0.2764	0.2971	0.3146	0.2939
C1	Cx	0.3025	0.3150	0.3150	0.3025
	Cy	0.3146	0.3354	0.3529	0.3321
C2	Cx	0.3025	0.3150	0.3150	0.3025
	Cy	0.2971	0.3179	0.3354	0.3146
C3	Cx	0.3150	0.3275	0.3275	0.3150
	Cy	0.3354	0.3561	0.3736	0.3529
C4	Cx	0.3150	0.3275	0.3275	0.3150
	Cy	0.3179	0.3386	0.3561	0.3354

Bin		1	2	3	4
E1	Cx	0.3275	0.3400	0.3400	0.3275
	Cy	0.3561	0.3768	0.3943	0.3736
E2	Cx	0.3275	0.3400	0.3400	0.3275
	Cy	0.3386	0.3593	0.3768	0.3561
E3	Cx	0.3400	0.3525	0.3525	0.3400
	Cy	0.3768	0.3975	0.4150	0.3943
E4	Cx	0.3400	0.3525	0.3525	0.3400
	Cy	0.3593	0.3800	0.3975	0.3768

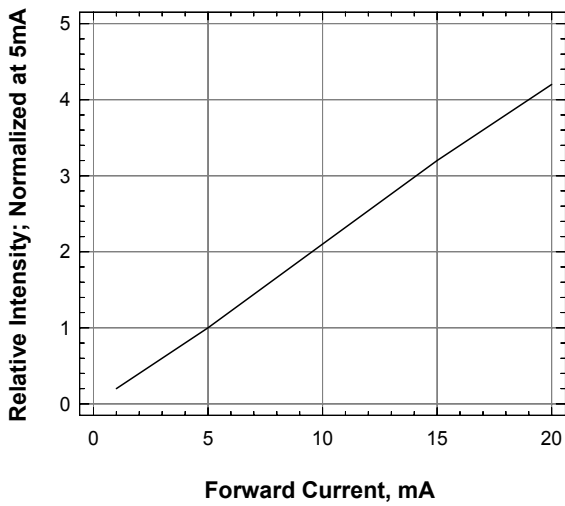
Dominant color coordinate is measured with an accuracy of ± 0.01 .

Luminous Intensity Group at T_j=25°C

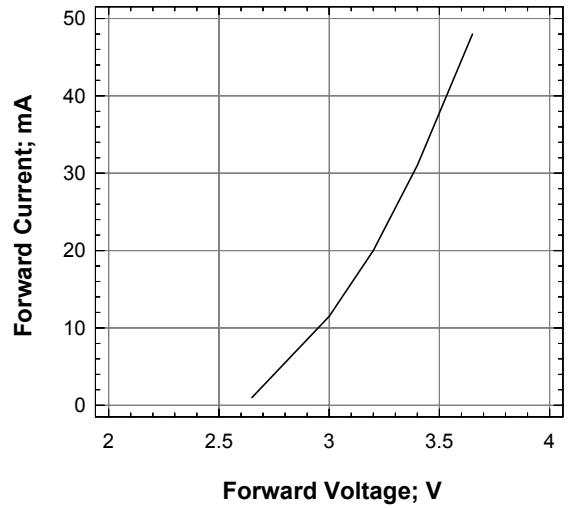
Brightness Group	Luminous Intensity IV (mcd)
R2	140.0 ... 180.0
S1	180.0 ... 224.0
S2	224.0 ... 285.0
T1	285.0 ... 355.0
T2	355.0 ... 450.0
U1	450.0 ... 560.0

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

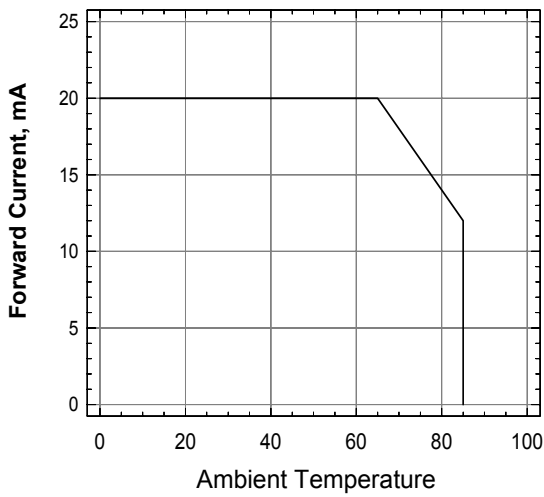
Relative Intensity vs Forward Current



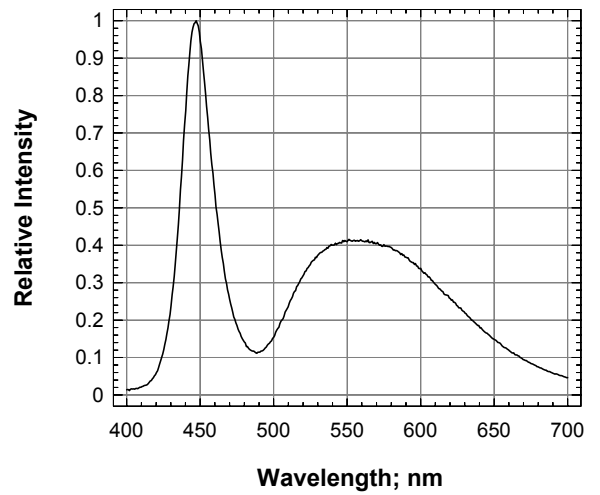
Forward Current Vs Forward Voltage



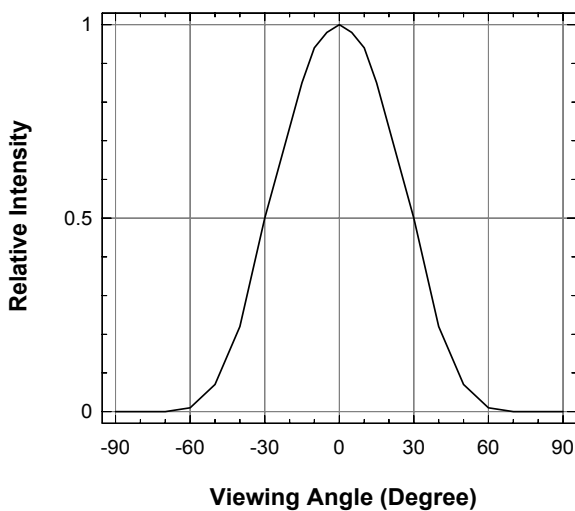
Forward Current Vs Ambient Temperature



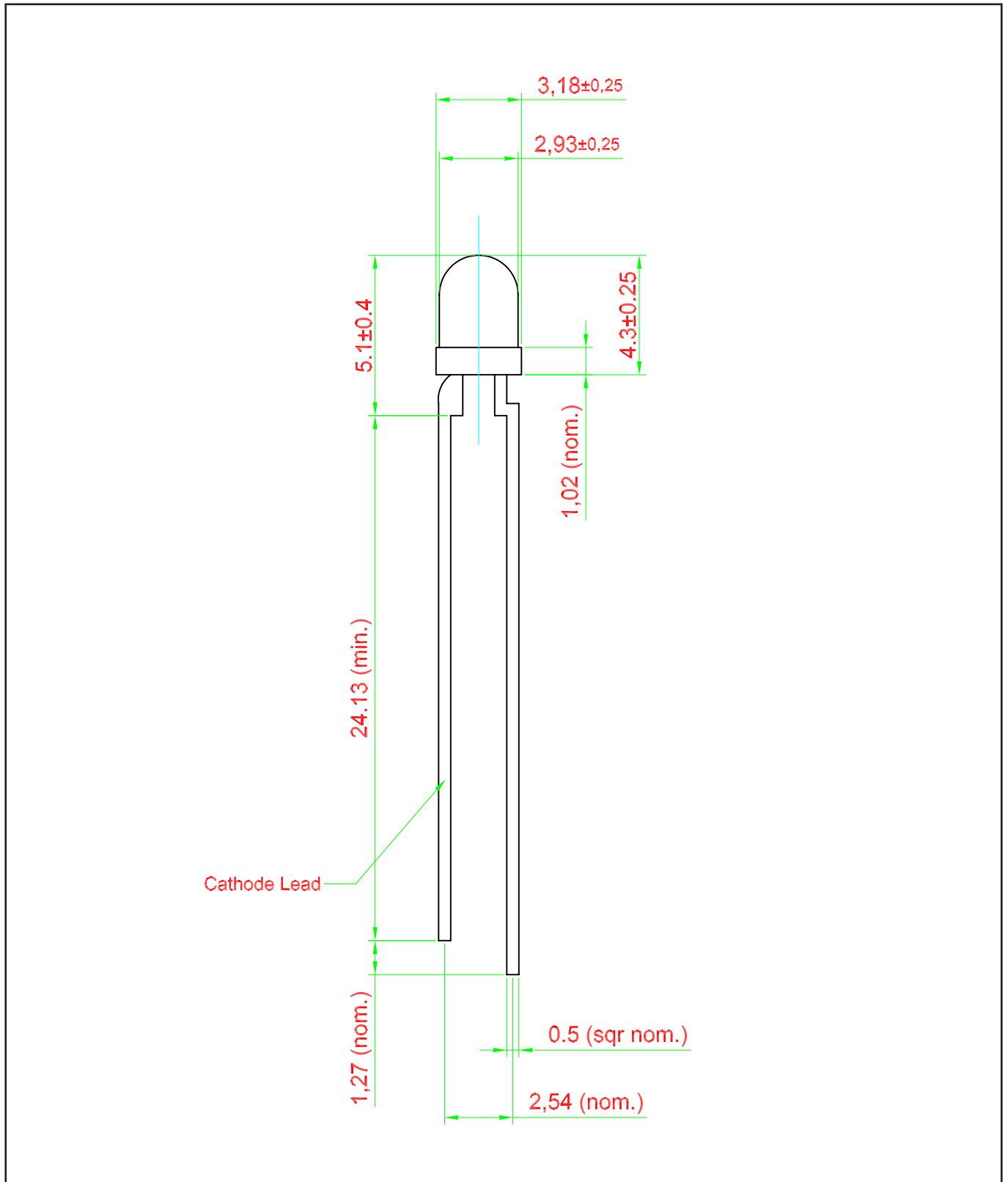
Relative Intensity Vs Wavelength



Radiation Pattern (2Θ=60°)



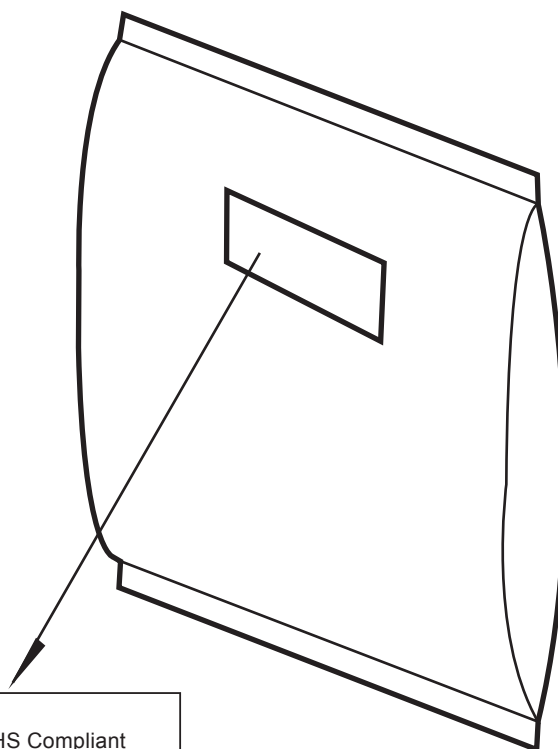
3mm Lamp • InGaN White: High Brightness Package Outlines






Packaging Specification

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

	Average 1pc 3mm Lamp	1 completed pack (500pcs)
Weight (gram)	0.12	70 ± 10

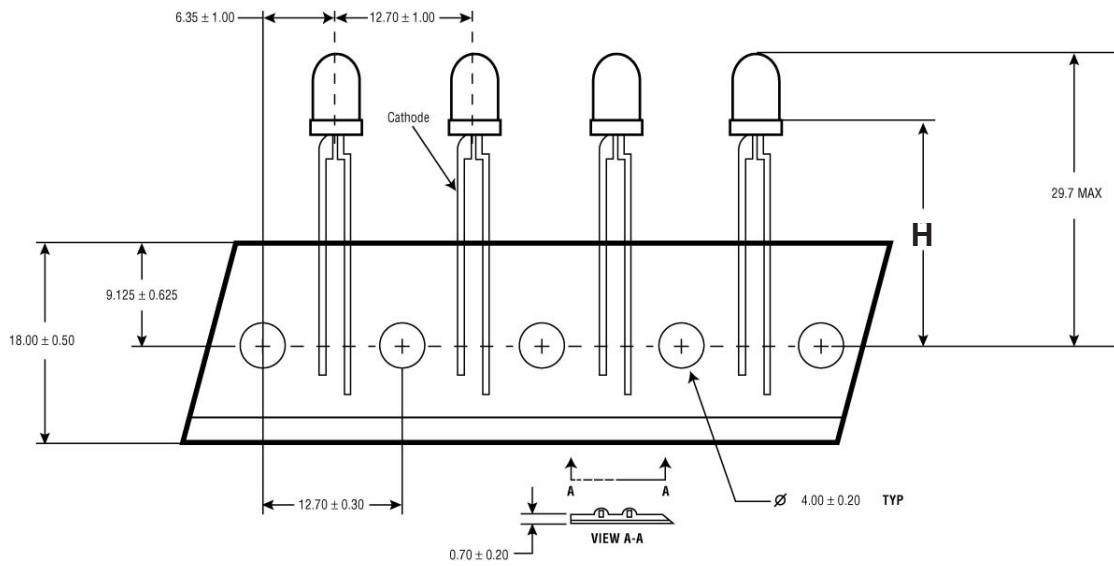


Barcode label

DOMINANT		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		
		

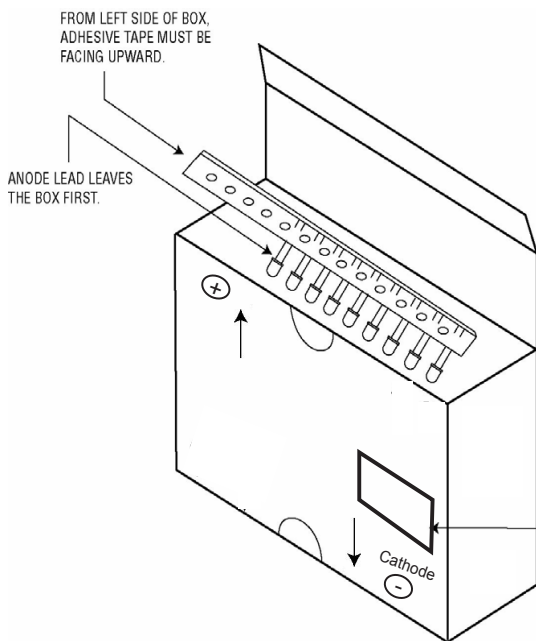
Packaging Specification

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



Packing Variant	H	Polarity of 1st Lead Leaves the Box
A N 1 8	18.0 ± 0.5	Anode
A N 2 3	22.5 ± 0.5	Anode
A N 2 7	27.0 ± 0.5	Anode

Average 1pc 3mm Lamp (g)	Box Dimensions (mm)	Empty Box Weight (kg)	Quantity / Box (pcs)	1 Completed Box With Units (kg)
0.12	335 x 135 x 48	0.16	1,800	0.85 ± 0.1



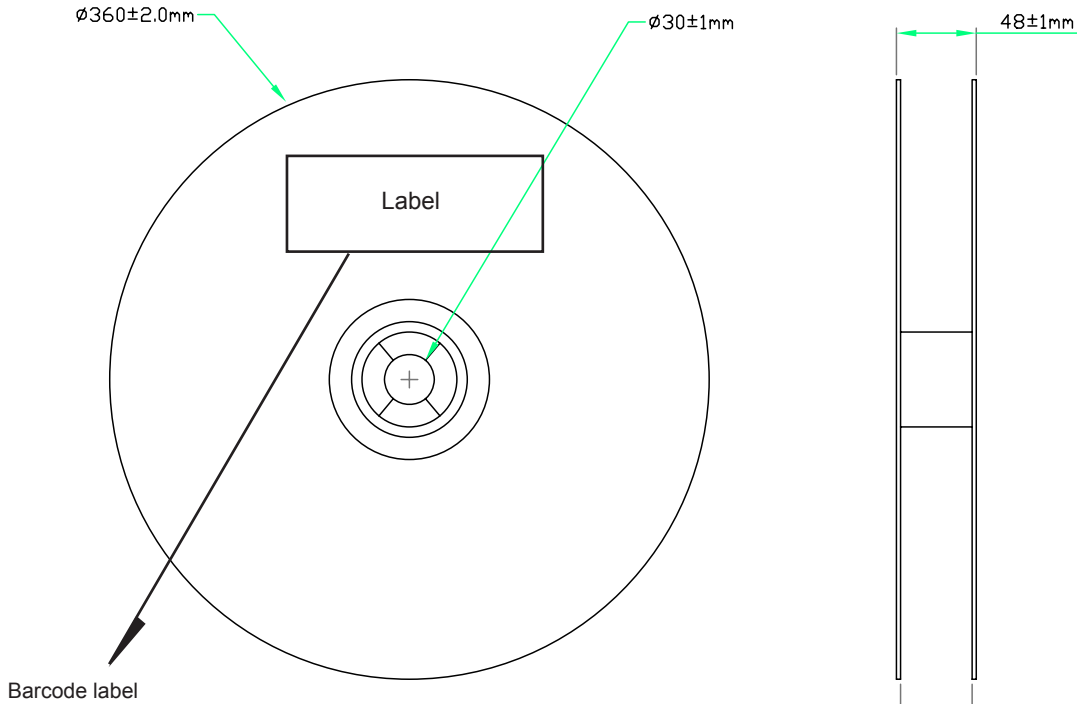
Barcode label




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

LABEL ON THIS SIDE OF BOX

Packaging Specification

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

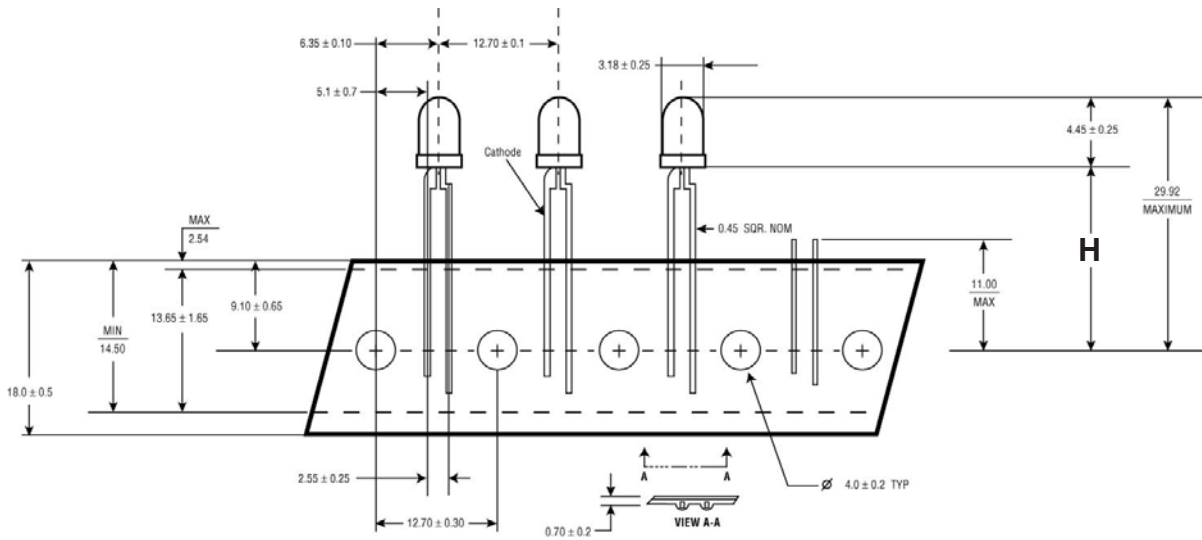


DOMINANT		ROHS Compliant
LOT NO : lotno		
		
PART NO : partno		PB Free
QTY : product quantity per reel	S/N : serial no	D/C: date code
GROUP : group		
		

Average 1pc 3mm Lamp (g)	Empty Reel Weight (kg)	Quantity / Reel (pcs)	1 Completed Reel (kg)
0.12	0.39	1,800	0.75 ± 0.1

Packaging Specification

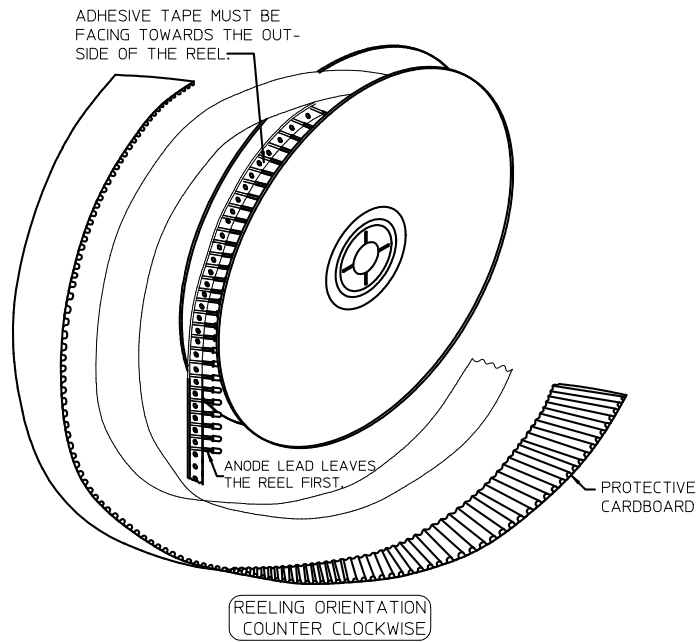
3. Reel: Lxx-xxxxx-xxxx-x-x-TRNxxx



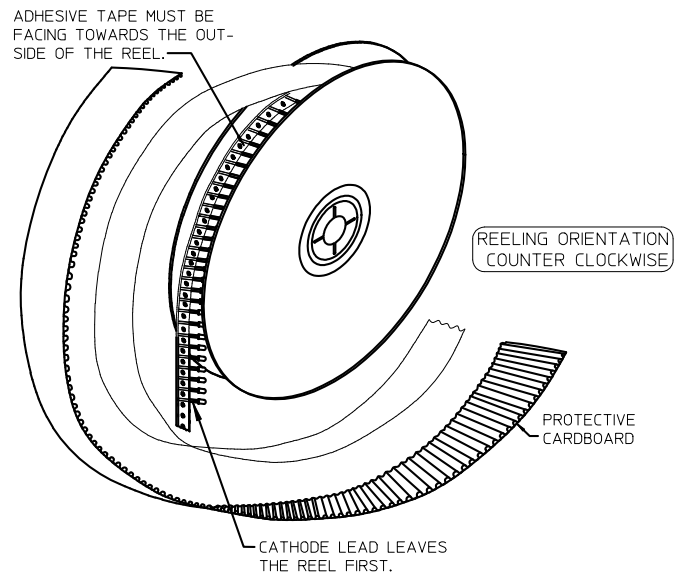
Packing Variant	H	Polarity of 1st Lead Leaves the Box
R N 1 8 A	18.0 ± 0.5	Anode
R N 1 8 C	18.0 ± 0.5	Cathode
R N 2 1 A	20.5 ± 0.5	Anode
R N 2 1 C	20.5 ± 0.5	Cathode
R N 2 3 A	22.5 ± 0.5	Anode
R N 2 3 C	22.5 ± 0.5	Cathode
R N 2 5 A	25.0 ± 0.5	Anode
R N 2 5 C	25.0 ± 0.5	Cathode
R N 2 9 A	28.5 ± 0.5	Anode
R N 2 9 C	28.5 ± 0.5	Cathode

Packaging Specification

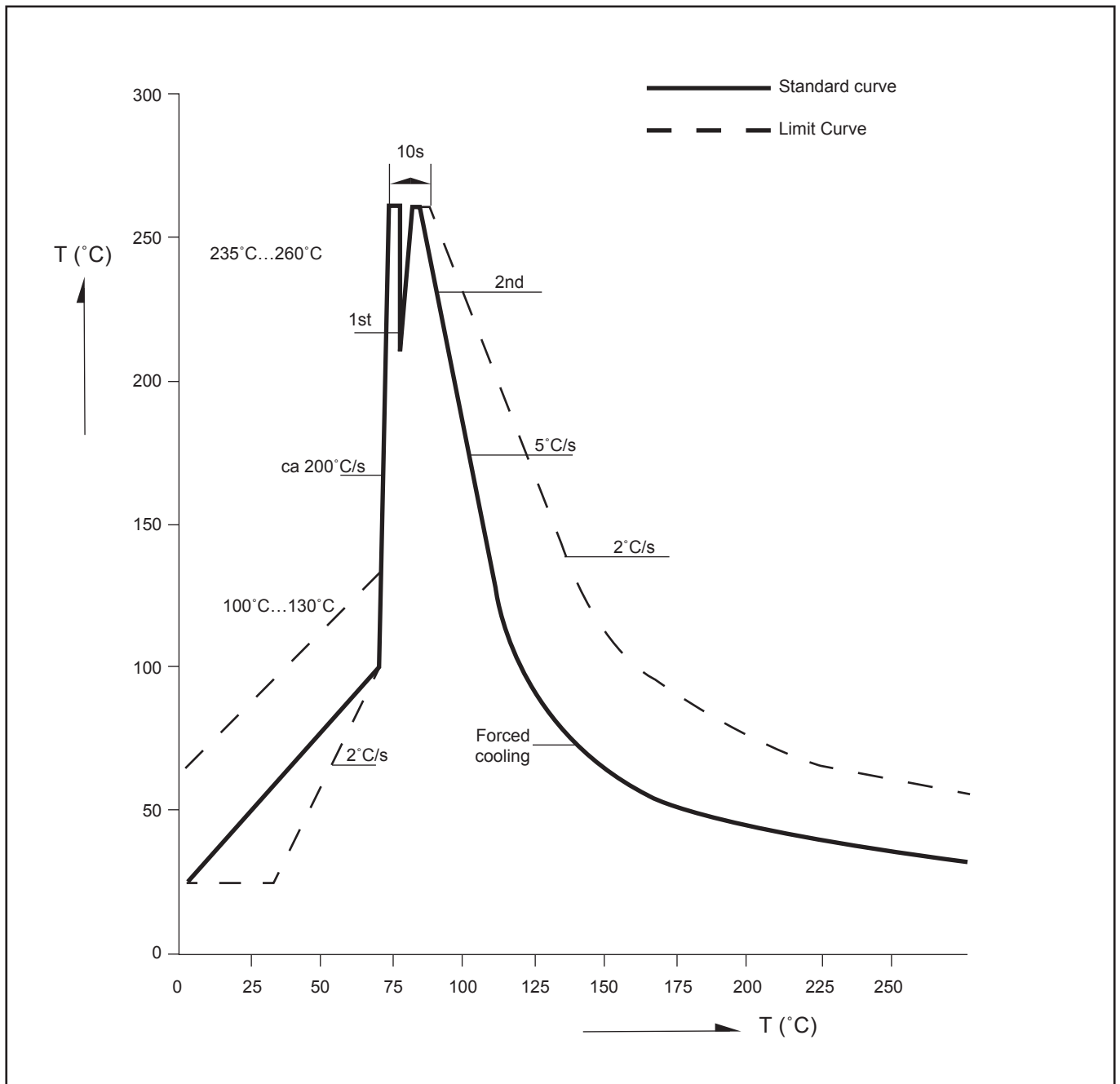
1. Anode option:



2. Cathode option:



Recommended TTW Soldering Profile (acc. to CECC 00802)



Revision History

Page	Subjects	Date of Modification
-	Initial Release	28 Mar 2012
2, 8, 9, 10, 11, 12	Add partno: L3W-U60E0-S2U1-1 Update packaging option	24 Apr 2012
6	Update graph: Relative Intensity Vs Forward Current	08 Jun 2012

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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