

### Lamp Type LED - 3mm

This 3mm LED is widely used in general purpose indicator applications. These lamps are offering superior light output and wide viewing angles due to the optical design.



### Features:

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

### Applications:

- > Lighted switches
- > Light pipe sources
- > Keyboard indicators

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

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ IF = 20mA IV (mcd)		
			Min.	Typ.	Max.
L3S-C5000-S2U1-1	Super Red, 632nm	50	224.0	400.0	560.0
L3O-C5000-TU2-1	Orange, 605nm	50	285.0	450.0	715.0
L3O-C5000-UV2-1	Orange, 605nm	50	450.0	715.0	1125.0
L3Y-C5000-TU2-1	Yellow, 587nm	50	285.0	450.0	715.0
L3Y-C5000-UV2-1	Yellow, 587nm	50	450.0	715.0	1125.0
L3P-C5000-PQ2-1	Pure Green, 560nm	50	45.0	71.5	112.5

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)
L3x-C5000	1.8	2.0	2.6	12

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

**Absolute Maximum Ratings**

	Maximum Value	Unit
DC forward current	30	mA
Peak pulse current; (tp ≤ 10µs, Duty cycle = 0.10)	500	mA
Reverse voltage ; Ir (max) = 10µA.	12	V
ESD threshold (HBM)	2000	V
LED junction temperature	110	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	75	mW

**Wavelength Grouping at Tj=25°C**

Color	Group	Wavelength distribution (nm)
L3S, Super Red	Full	625 - 640
L3O; Orange	Full	600 - 612
	W	600 - 603
	X	603 - 606
	Y	606 - 609
	Z	609 - 612
L3Y; Yellow	Full	582 - 594
	W	582 - 585
	X	585 - 588
	Y	588 - 591
	Z	591 - 594
L3P; 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

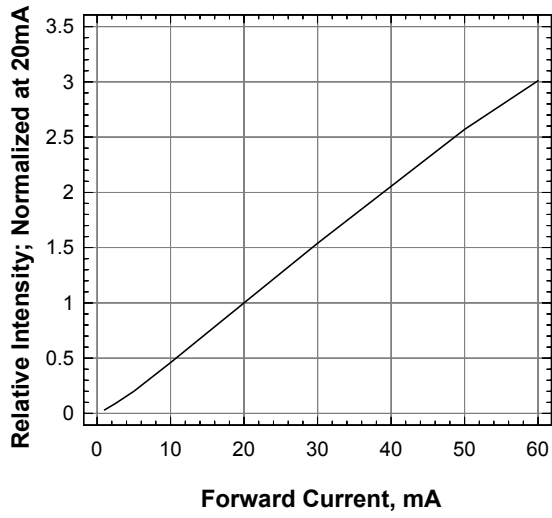
Dominant wavelength is measured with an accuracy of ± 1 nm.

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

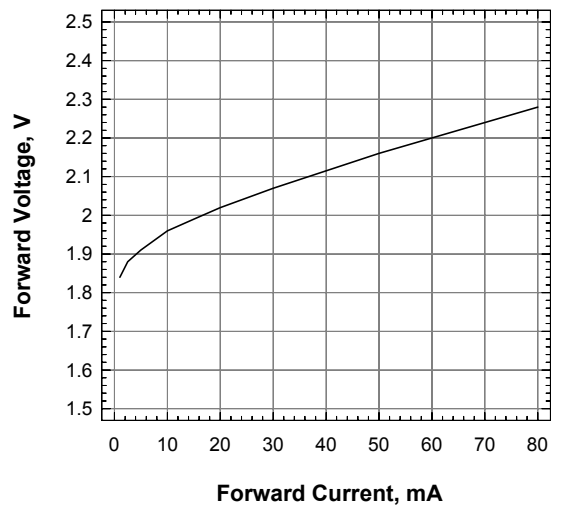
Brightness Group	Luminous Intensity IV (mcd)
P1	45.0...56.0
P2	56.0...71.5
Q1	71.5...90.0
Q2	90.0...112.5
S2	224.0...285.0
T1	285.0...355.0
T2	355.0...450.0
U1	450.0...560.0
U2	560.0...715.0
V1	715.0...900.0
V2	900.0...1125.0

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

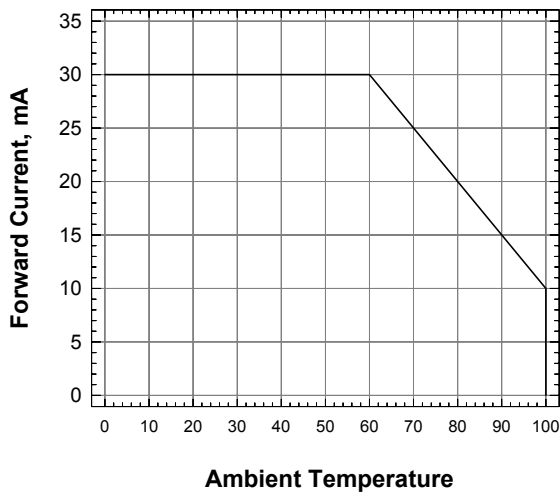
**Relative Luminous Intensity Vs Forward Current**



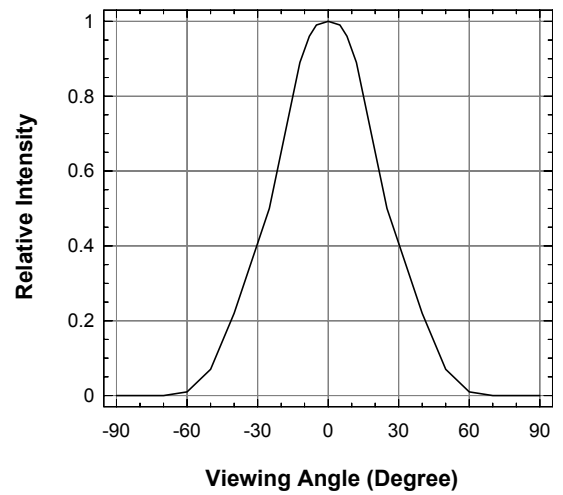
**Forward Current Vs Forward Voltage**



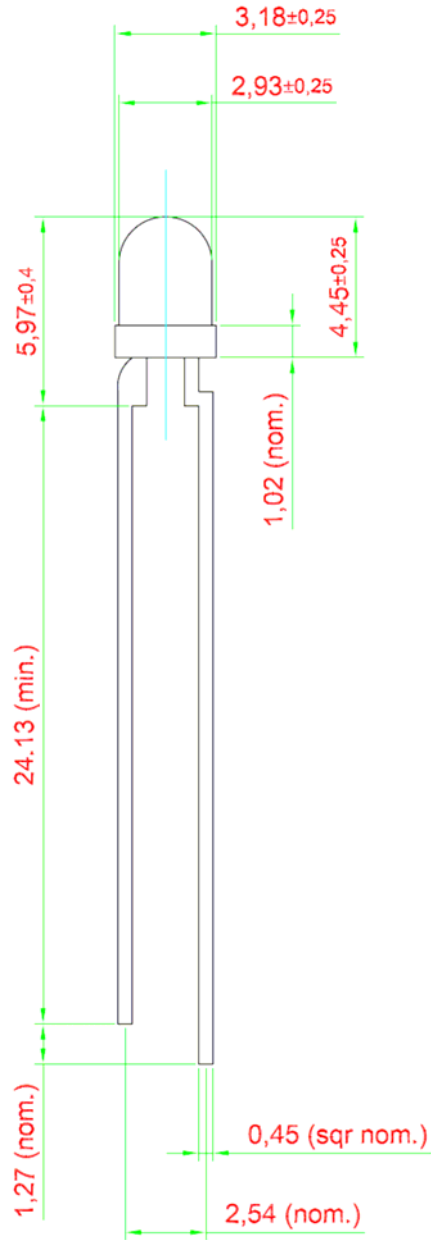
**Maximum Current Vs Temperature**



**Radiation Pattern (2θ=50°)**



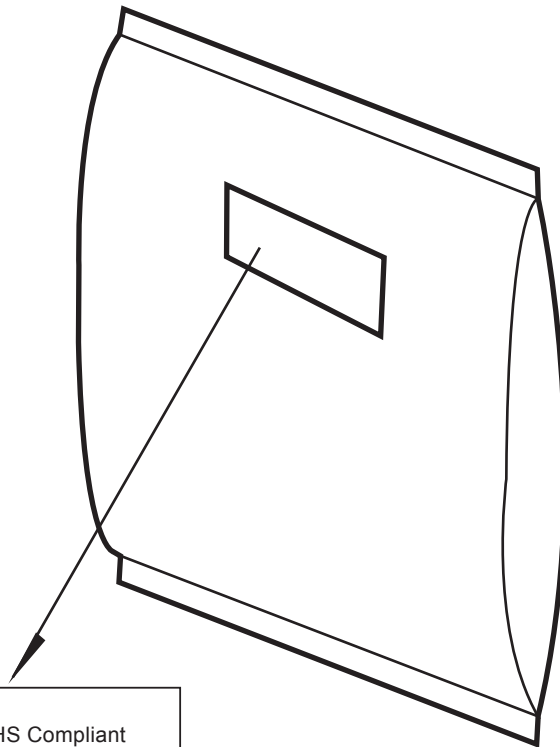
**3mm Lamp • AllnGaP : High Brightness Package Outlines**





**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

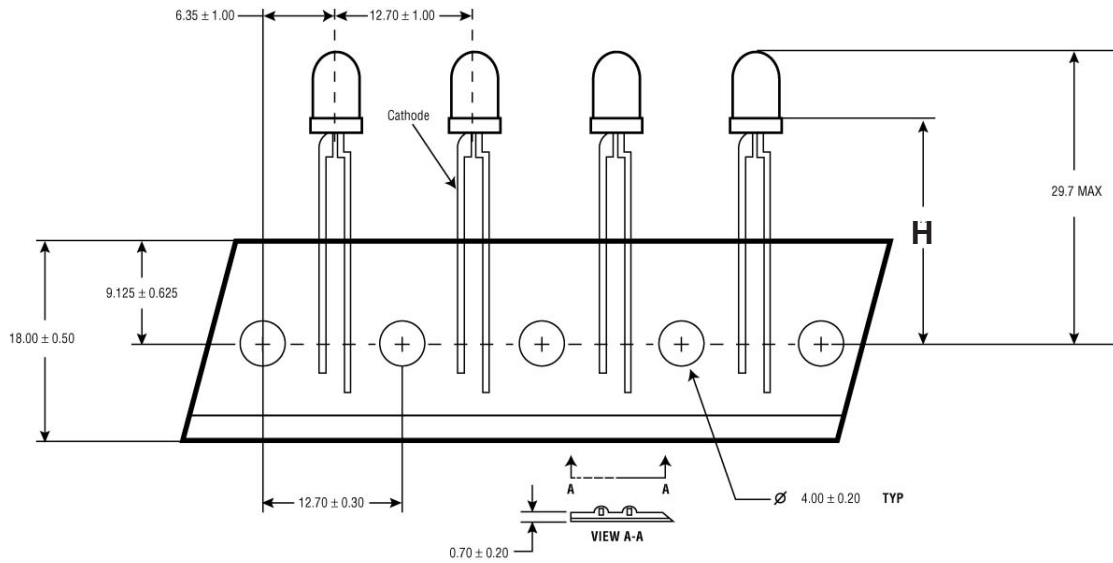


Barcode label

<b>DOMINANT</b>	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
	

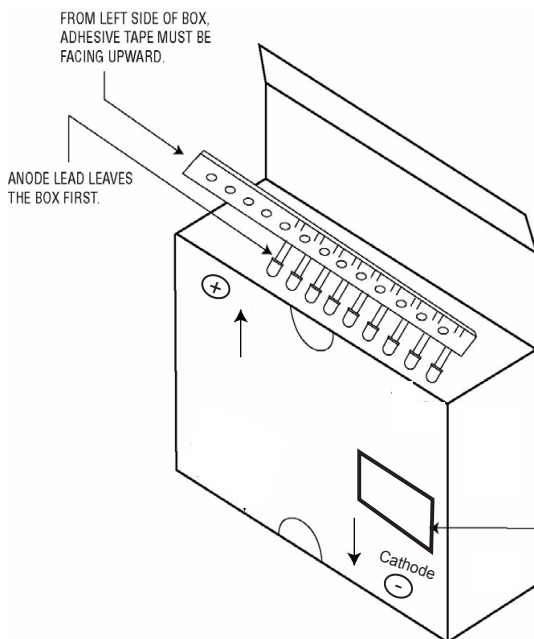
**Packaging Specification**

**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	345 x 275 x 48	0.16	5,000	0.85 ± 0.1



Barcode label

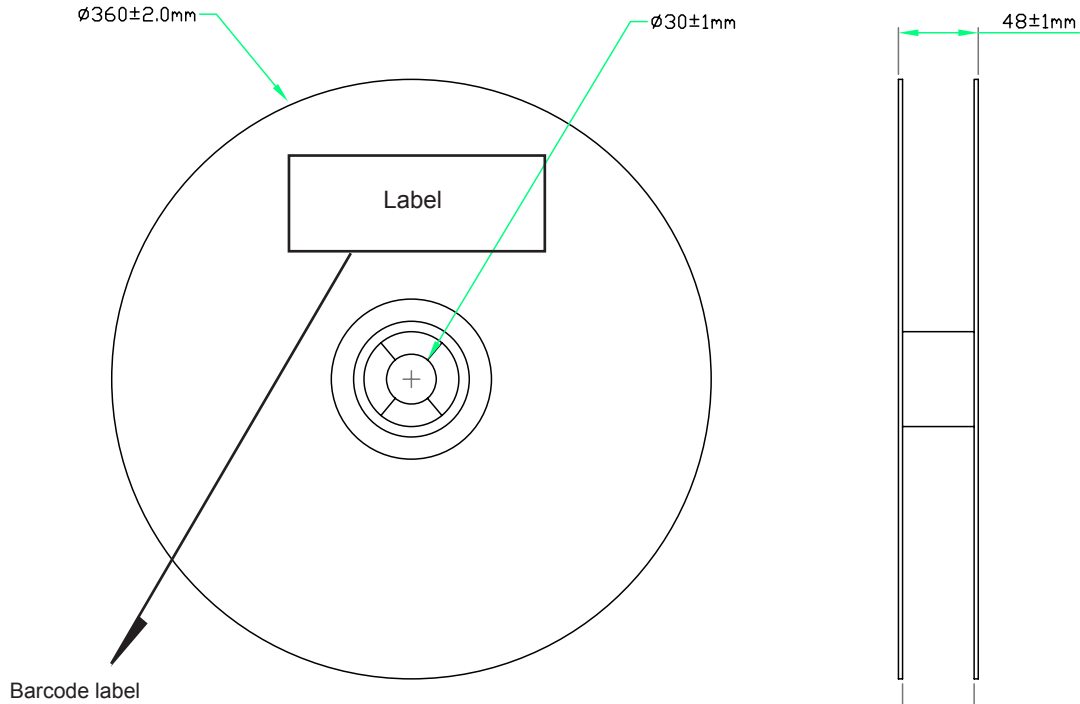
<b>DOMINANT</b>	ROHS Compliant
LOT NO : lotno	
PART NO : partno	PB Free
QTY : product quantity per reel S/N : serial no D/C: date code	
GROUP : group	




LABEL ON THIS SIDE OF BOX



**Packaging Specification**

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



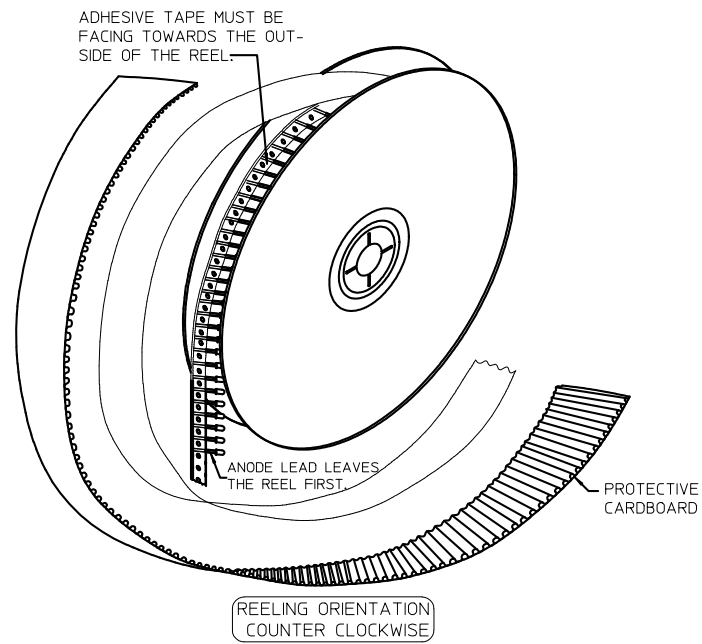
<b>DOMINANT</b>		ROHS Compliant
LOT NO : lotno		
		
PART NO : partno		PB Free
QTY : product quantity per reel	S/N : serial no	D/C: date code
GROUP : group		
		

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

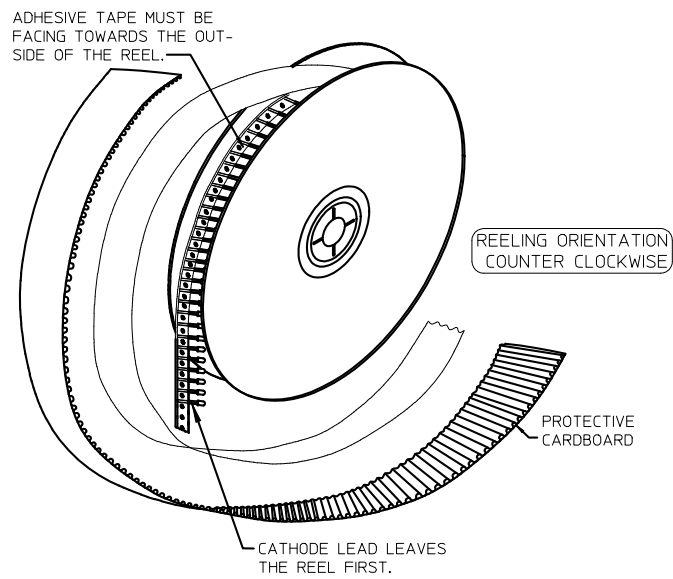


## Packaging Specification

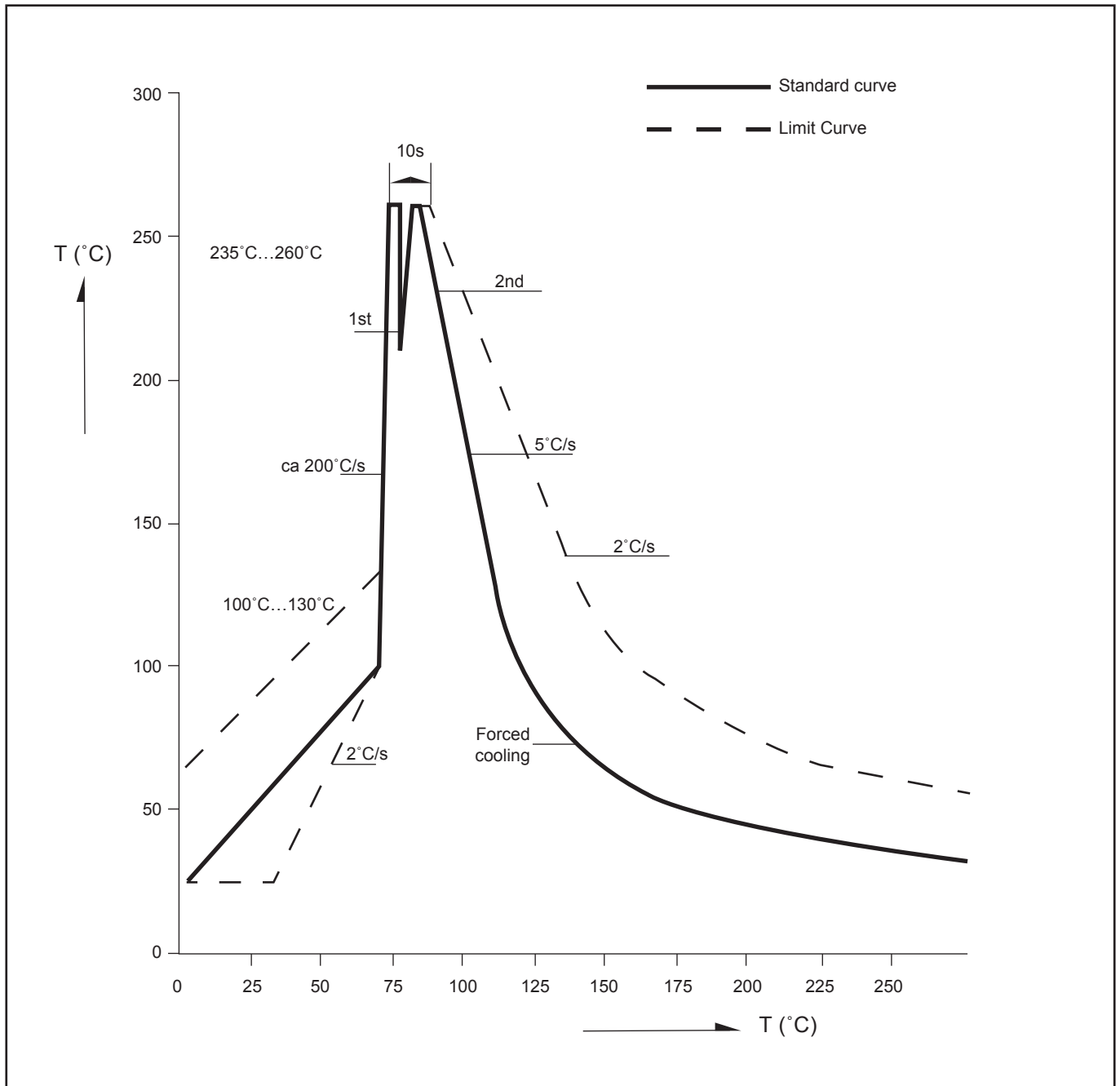
### 1. Anode option:



### 2. Cathode option:



**Recommended TTW Soldering Profile (acc. to CECC 00802)**



**Revision History**

<b>Page</b>	<b>Subjects</b>	<b>Date of Modification</b>
-	Initial release	27 Sep 2010
2	Add new partno: L3S-C5000-S2U1-1	25 Jan 2011
5	Update graph "Relative Intensity VS Forward Current" Typo error on Reverse Voltage	19 May 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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