

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 diffused LED lamp.
- > Superior resistance to moisture
- > Suitable for TTW soldering.
- > Ultra wide viewing angle at 100°

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-CA0D0-PQ2-1	Super Red, 632nm	100	45.00	71.50	112.50
L3A-CA0D0-Q2S1-1	Amber, 615nm	100	90.00	140.0	224.00

NOTE

1. Luminous intensity is measured with an accuracy of $\pm 15\%$.
2. 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-CA0D0	1.8	2.0	2.6	12

Forward voltage, measured with an accuracy of $\pm 0.1V$.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	30	mA
Peak pulse current; (tp $\leq 10\mu s$, Duty cycle = 0.10)	500	mA
Reverse voltage ; Ir (max) = 10 μA .	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
L3A; Amber	Full	610 - 621
	W	610 - 615
	X	615 - 621

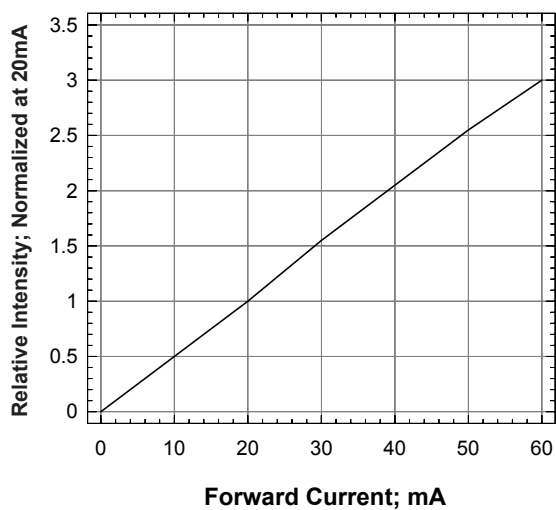
Dominant wavelength is measured with an accuracy of ± 1 nm.

Luminous Intensity Group at Tj=25°C

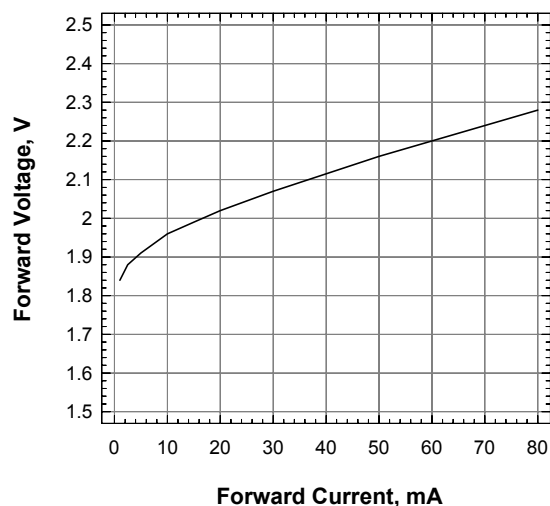
Brightness Group	Luminous Intensity IV (mcd)
P1	45.0 ... 56.0
P2	56.0 ... 71.5
Q1	71.5 ... 90.0
Q2	90.0 ... 112.5
R1	112.5 ... 140.0
R2	140.0 ... 180.0
S1	180.0 ... 224.0

Luminous intensity is measured with an accuracy of $\pm 15\%$.

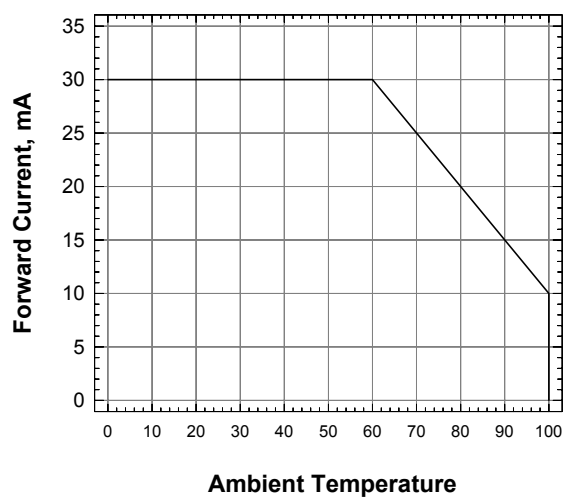
Relative Intensity vs Forward Current



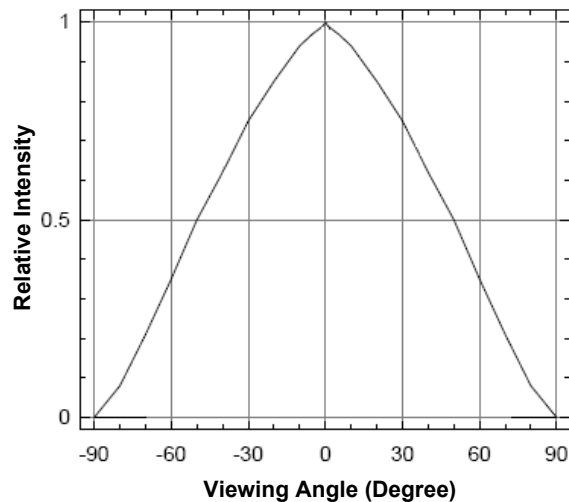
Forward Current Vs Forward Voltage



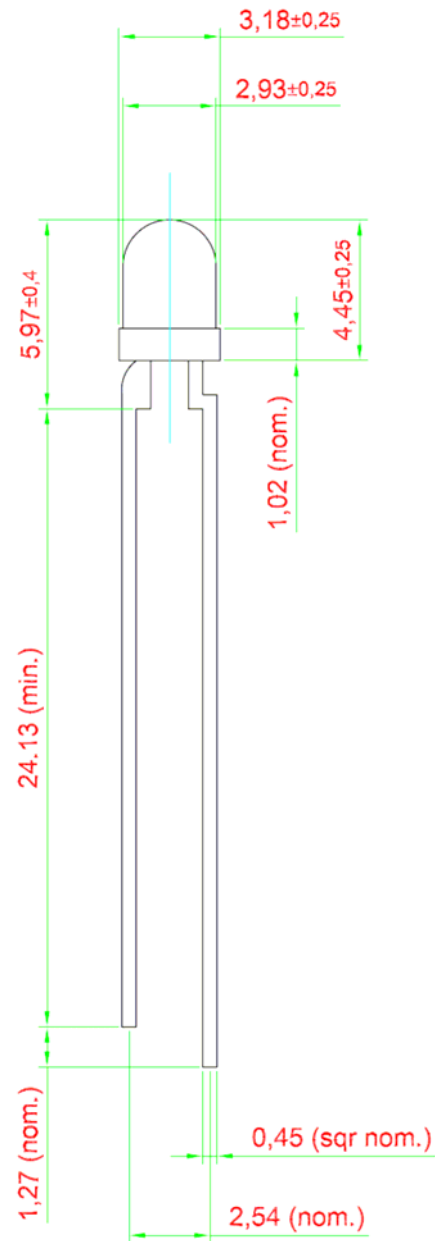
Maximum Current Vs Temperature



Radiation Pattern (2Θ=100°)



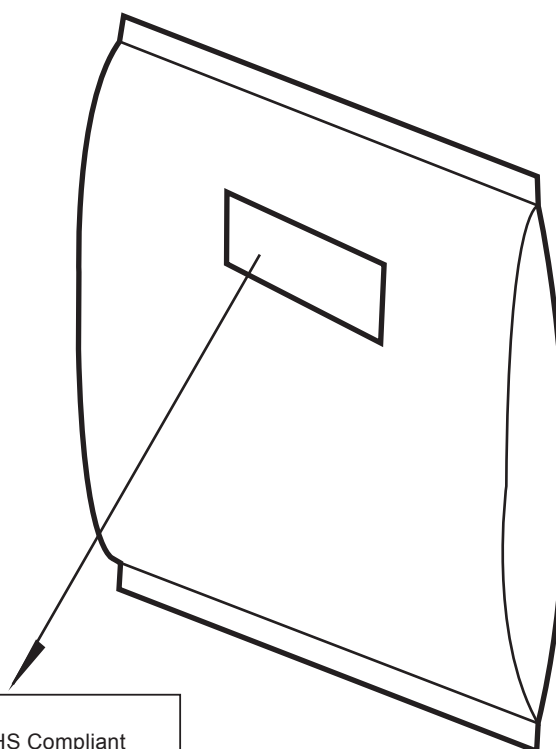
3mm Lamp • AllnGaP L3x-CA0D0 : High Brightness Package Outlines



Packaging Specification

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

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

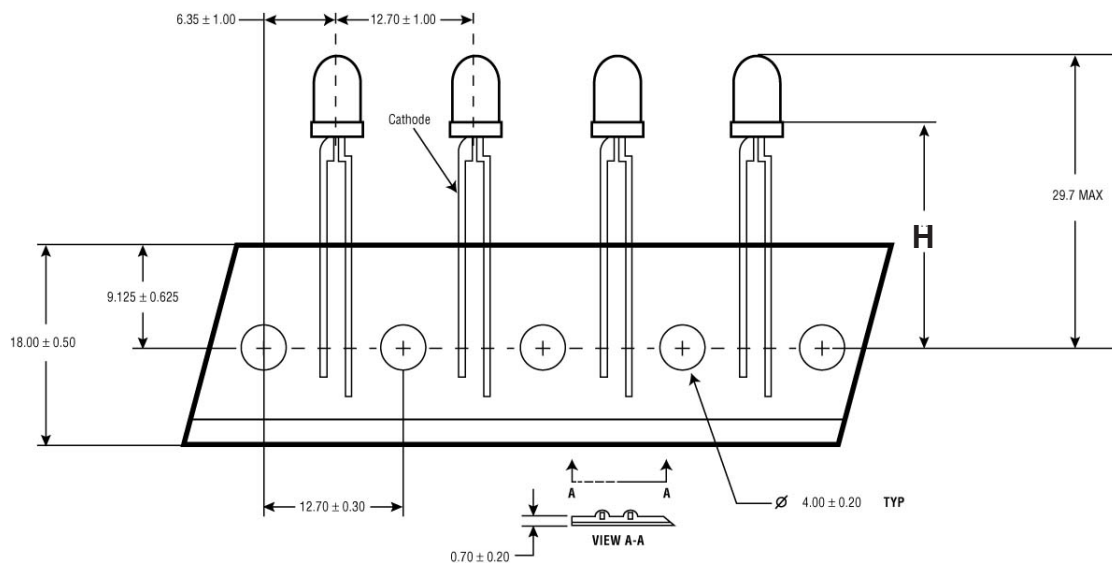


Barcode label

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		
		

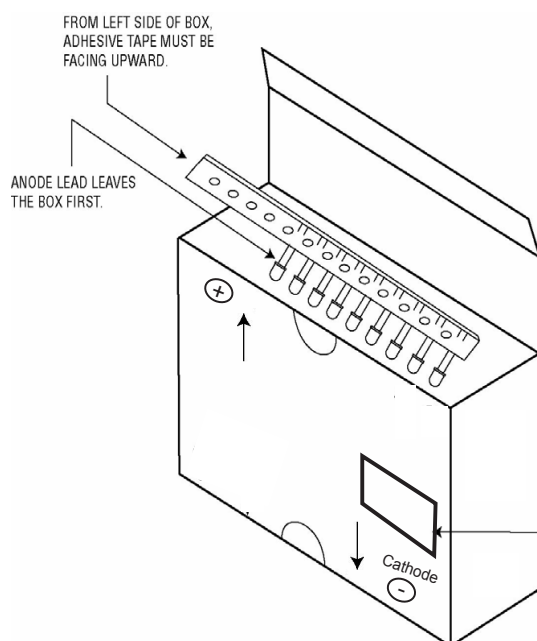
Packaging Specification

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	345 x 420 x 48	0.16	5,000	0.85 ± 0.1



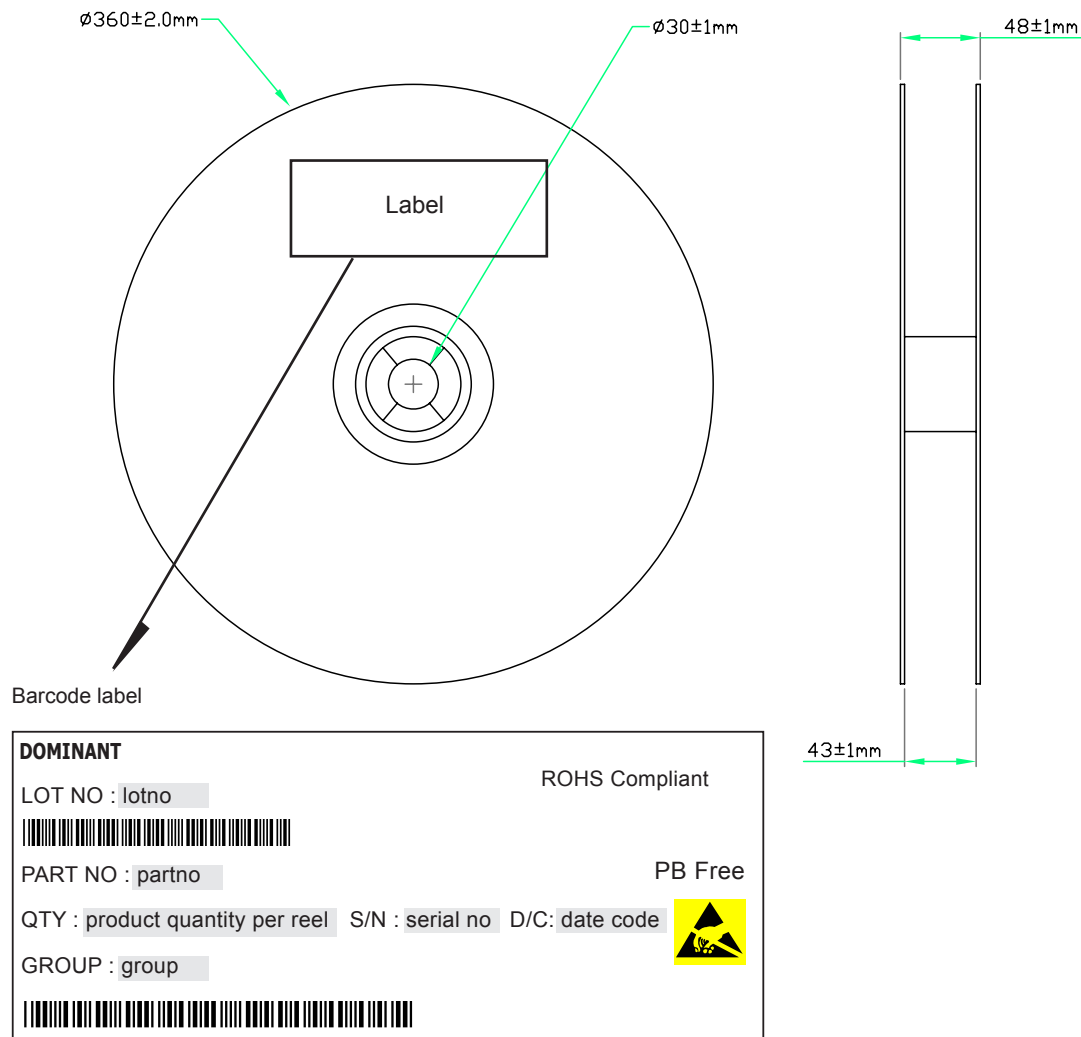
Barcode label

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

LABEL ON THIS SIDE OF BOX

Packaging Specification

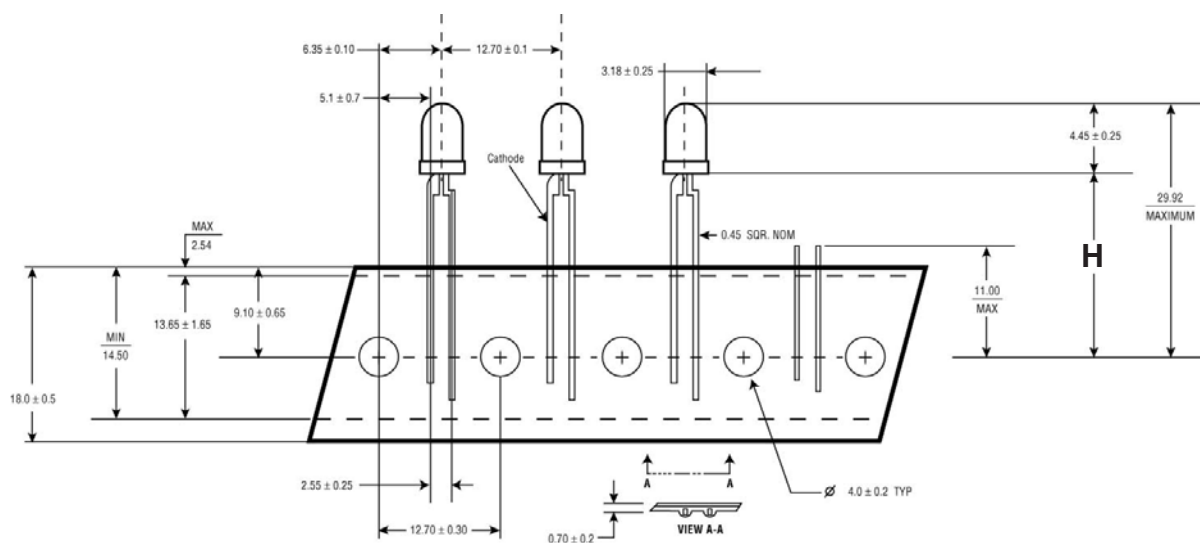
3. Reel: Lxx-xxxxxx-xxxx-x-x-TRNxxx



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

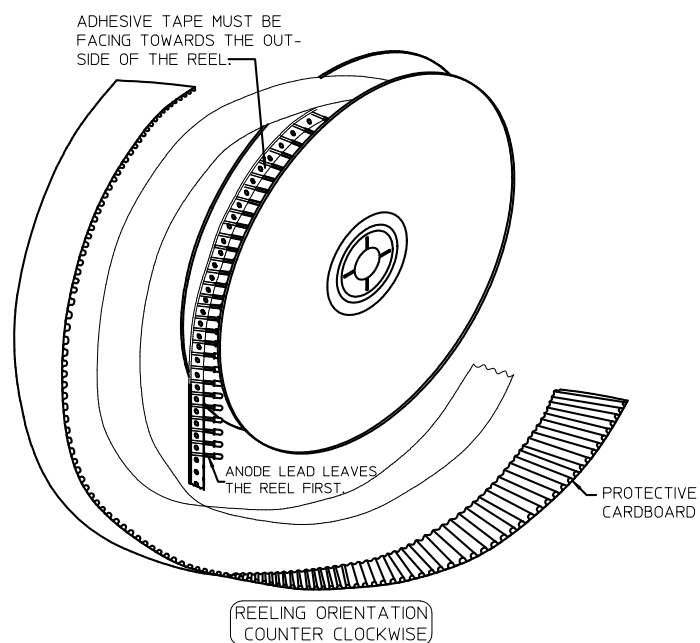
3. Reel: Lxx-xxxxx-xxxx-x-x-TRNxxx



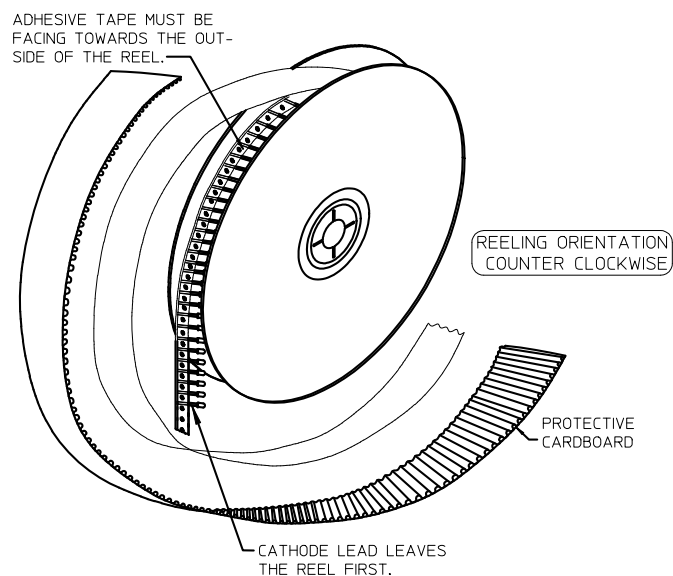
Packing Variant	H	Polarity of 1st Lead Leaves the Box
R N 1 8 A	18.0 ± 0.5	Anode
R N 1 8 C	18.0 ± 0.5	Cathode
R N 2 1 A	20.5 ± 0.5	Anode
R N 2 1 C	20.5 ± 0.5	Cathode
R N 2 3 A	22.5 ± 0.5	Anode
R N 2 3 C	22.5 ± 0.5	Cathode
R N 2 5 A	25.0 ± 0.5	Anode
R N 2 5 C	25.0 ± 0.5	Cathode
R N 2 9 A	28.5 ± 0.5	Anode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

Packaging Specification

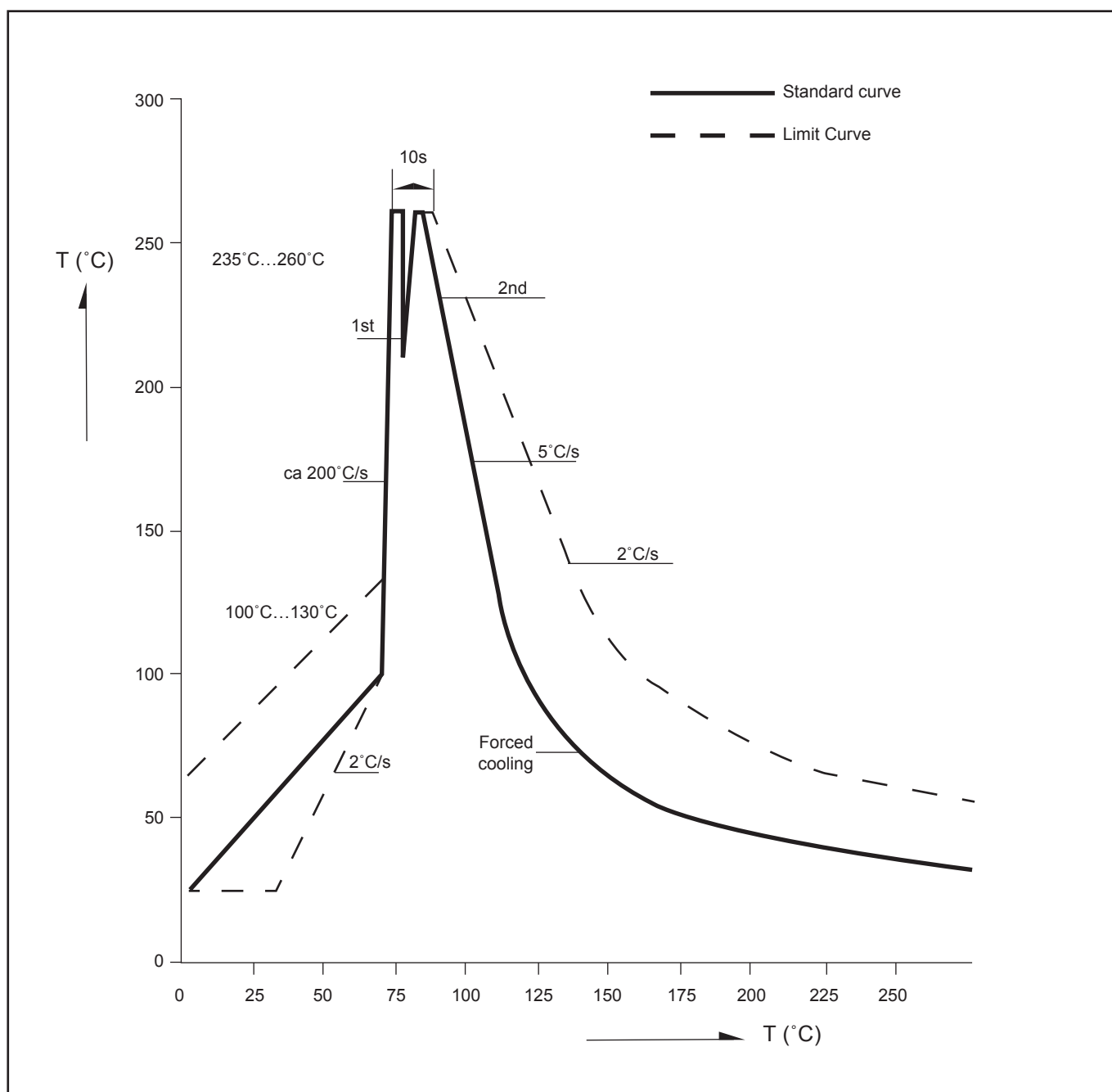
1. Anode option:



2. Cathode option:



Recommended TTW Soldering Profile (acc. to CECC 00802)



Revision History

Page	Subjects	Date of Modification
-	Initial release	18 Oct 2011
2	Add partno: L3A-CA0D0-Q2S1-1	19 Apr 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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