



Opto Plus LED Corp

OPS-L150TS-DPJ

3.2 x 1.6 x 1.1mm SMD LAMP

● **EDIT HISTORY**

Version A: Jan. 16, 2012

New color data sheet.

Manufacture	Examination	Approving



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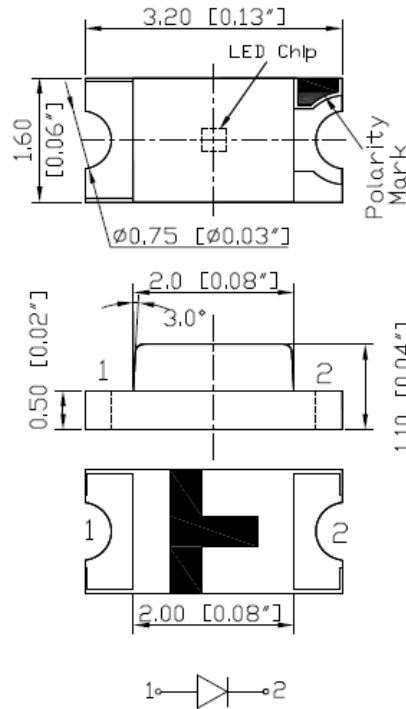
OPS-L150TS-DPJ

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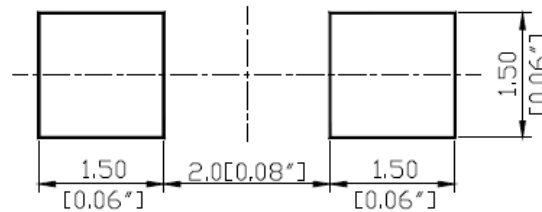
● FEATURES

- ◆ 3.2 x 1.6 x 1.1 mm SMD Lamp.
- ◆ Wide viewing angle.
- ◆ Low power consumption.
- ◆ RoHS compliant.

● PACKAGE DIMENSIONS



● RECOMMENDED SOLDERING PAD DIMENSIONS



LENS COLOR	DICE MATERIAL	LIGHT COLOR
Water transparent	AlGaInP/GaAs	Amber

RoHS Compliance



Pb free.





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ABSOLUTE MAXIMUM RATING AT Ta=25°C

Absolute maximum ratings (T_A=25°C)			
Parameter	Symbol	Value	Unit
Forward current	I _f	30	mA
Reverse voltage	V _r	5	V
Power dissipation	P _d	75	mW
Operating temperature range	T _{op}	-40 ~+80	°C
Storage temperature range	T _{stg}	-40 ~+85	°C
Peak pulsing current (1/8 duty f=1kHz)	I _{fp}	125	mA

Electro-optical characteristics (T_A=25°C)						
Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	I _f =20mA	λ peak	--	610	--	nm
Spectral half bandwidth	I _f =20mA	Δ λ	--	17	--	nm
Dominant wavelength	I _f =20mA	λ dom	600	605	610	nm
Forward voltage	I _f =20mA	V _f	1.7	2.0	2.5	V
Luminous intensity	I _f =20mA	I _v	80	165	250	mcd
Viewing angle at 50% I _v	I _f =10mA	2θ 1/2	--	140	--	Deg
Reverse current	V _r =5V	I _r	--	--	10	μA



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BIN / HUE GRADE

Forward Voltage Rank Combination (IF=20mA)				
Rank	Min.	Max.	Unit	
□	1.7	2.5	V	
Luminous Intensity Rank Combination (IF=20mA)				
Rank	Min.	Max.	Unit	
I	80	100	mcd	
J	100	125		
K	125	160		
L	160	200		
M	200	250		
Dominant wavelength Rank Combination (IF=20mA)				
Rank	Min.	Max.	Unit	
p	600	605	nm	
q	605	610		
Group Name on Label (Example DATA: □Lq 20)				
DATA: □Lq 20	Vf(V)	Iv (mcd)	λ d (nm)	Test Condition
□→L→q→20	1.7~2.5	160~200	605~610	IF=20mA

*** NOTE:**

1. The tolerance of luminous intensity (Iv) is $\pm 15\%$.
2. The tolerance of dominant wavelength is ± 1 nm.
3. This specification is preliminary.



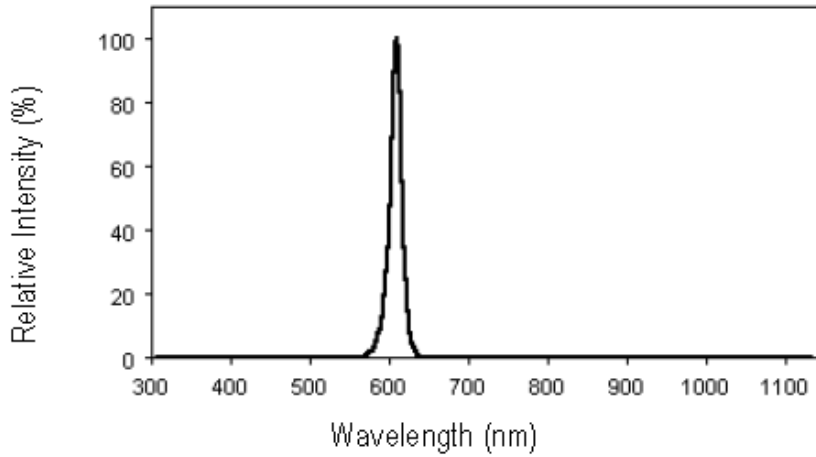
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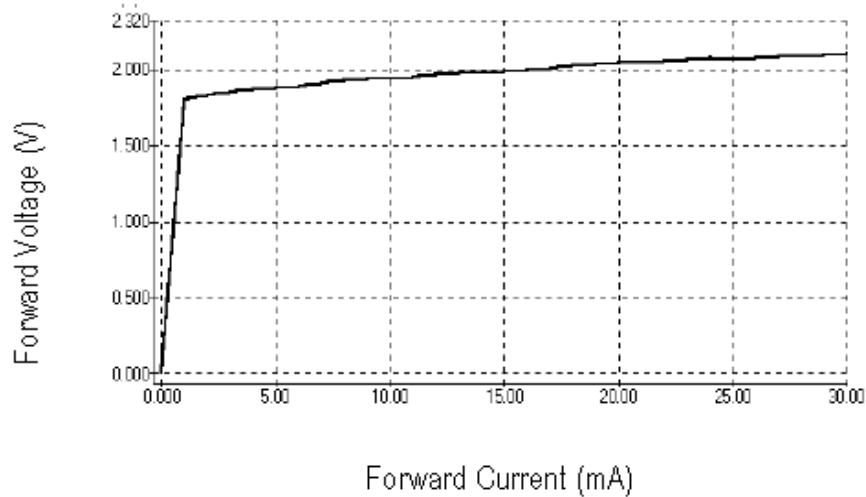
3.2 x 1.6 x 1.1mm SMD LAMP

● TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

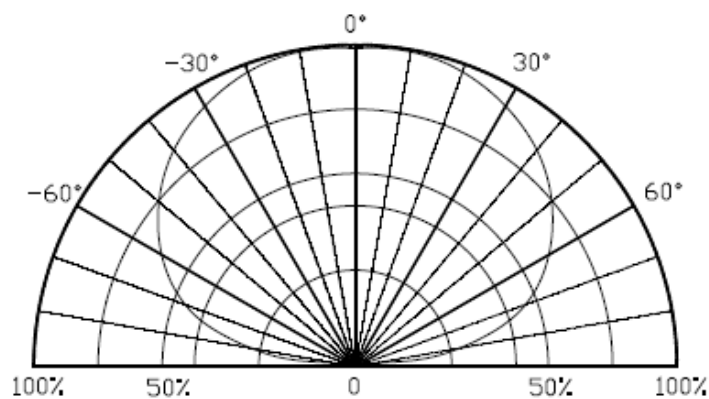
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics





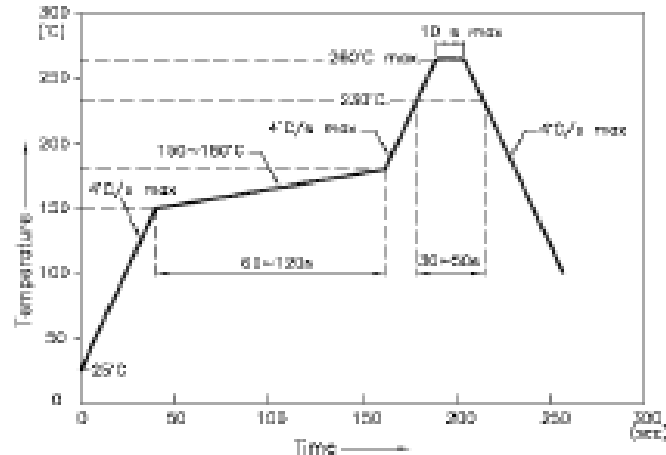
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● REFLOW SOLDERING

■ Reflow Temp/Time



NOTES:

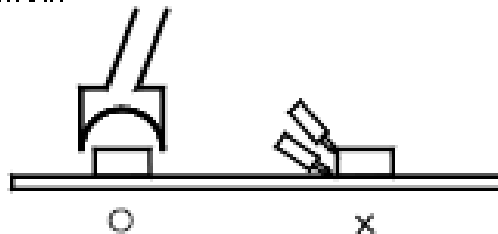
1. We recommend the reflow temperature 245 °C (±5 °C). the maximum soldering temperature should be limited to 260 °C .
2. dont cause stress to the epoxyresin while it is exposed to high temperature.
3. Number of reflowprocess shall be 2 times or less.

■ Soldering iron

Basic spec is ≤ 5 sec when 260 °C . If temperature is higher, time should be shorter (+10 °C \rightarrow -1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable . Surface temperature of the device should be under 230 °C .

■ Rework

1. Customer must finish rework within 5 sec under 260 °C .
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



■ Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow \searrow solder etc.



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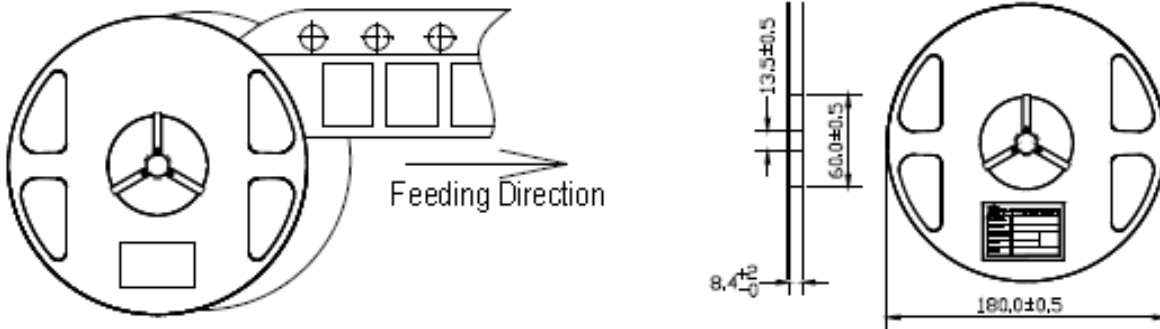
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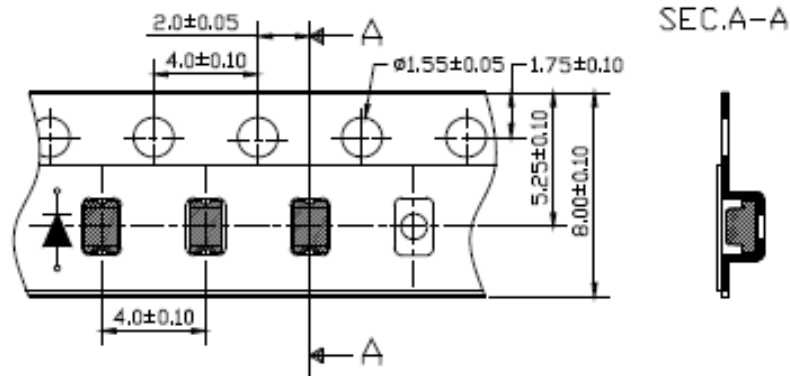
● TAPE SPECIFICATION : 3000 PCS PER REEL

● Feeding Direction

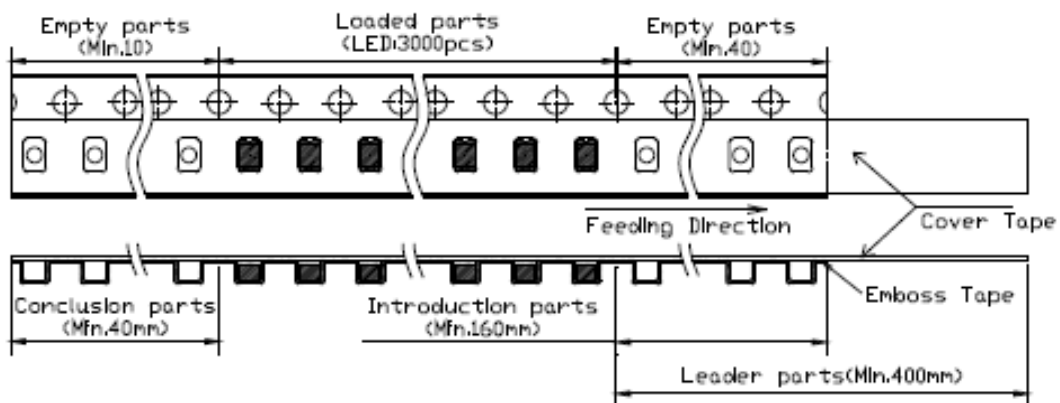
● Dimensions of Reel (Unit: mm)



● Dimensions of Tape (Unit: mm)



● Arrangement of Tape



NOTE

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole.
4. 3,000 pcs/Reel
5. This specification is preliminary.

Unit: mm

7

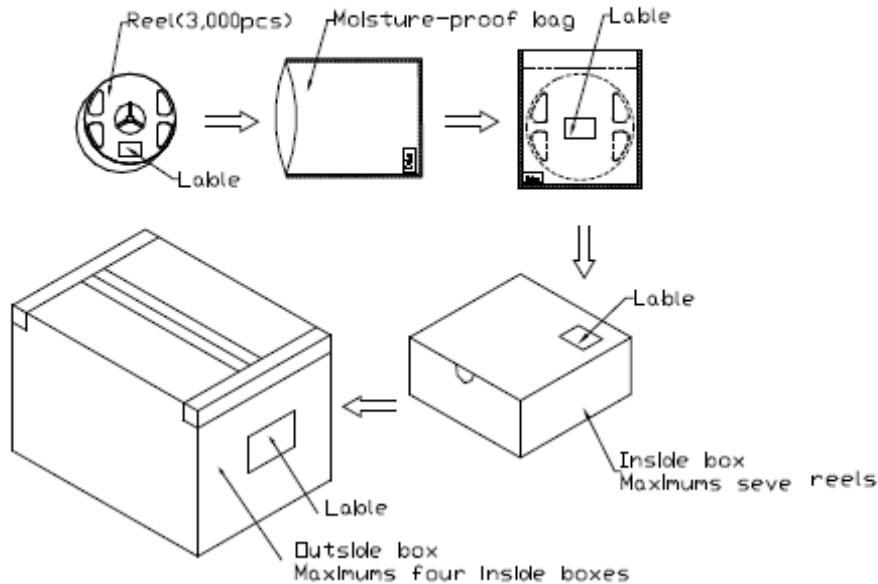


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● **PACKING AND SHIPPING INSTRUCTION**



NOTES:

Reeled products (numbers of products are 3,000pcs) packed in a seal off moisture-proof bag along with a desiccant one by one, Seven moisture-proof bag of maximums (total maximum number of products are 21,000pcs) packed in an inside box (size: about 238mm x about 194mm x about 102mm) and four inside boxes of maximums are put in the outside box (size: about 410mm x about 254mm x about 229mm) Together with buffer material, and it is packed. (Part No., Lot No., quantity should appear on the label on the moisture-proof bag, part No. And quantity should appear on the label on the cardboard box.) The number of the loading steps of outside box (cardboard box) has it to three steps.