

Opto Plus LED Corp

OPS-L191USD5-C0508

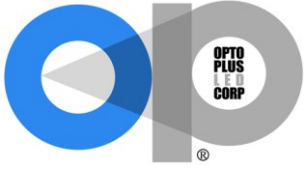
1.6 x 0.8 x 0.6 mm SMD LAMP

● **EDIT HISTORY**

Version A: Sep.20, 2012

New color data sheet.

Manufacture	Examination	Approving



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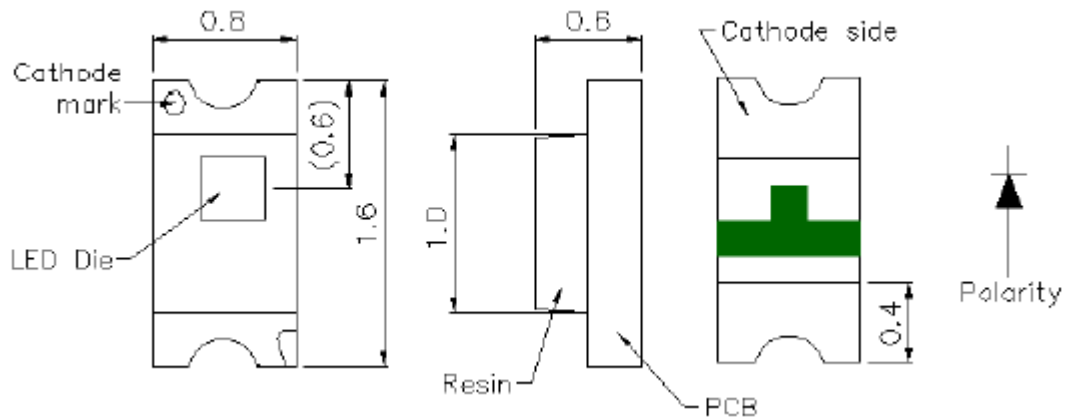
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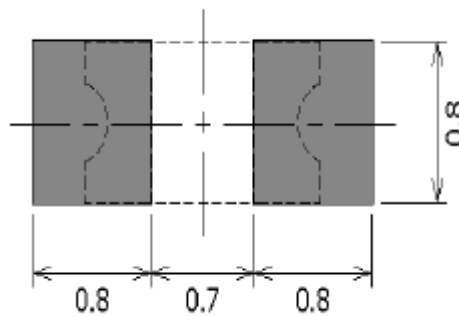
● **FEATURES**

- ◆ 1.6 x 0.8 x 0.6 mm SMD Lamp.
- ◆ Wide viewing angle.
- ◆ Low power consumption.
- ◆ RoHS compliant.

● **PACKAGE DIMENSIONS**



● **RECOMMENDED SOLDERING PAD DIMENSIONS**



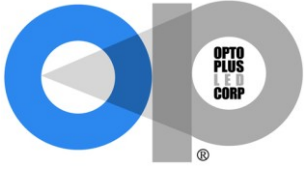
DICE MATERIAL	LIGHT COLOR
AllnGaP	Ultra Bright Orange

RoHS Compliance



Pb free.





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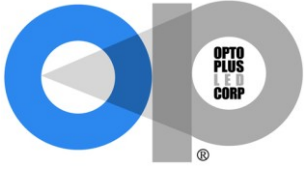
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● **ABSOLUTE MAXIMUM RATINGS AT TA=25°C**

Parameter	Symbol	Ultra Bright Orange	Unit
Power Dissipation	P_{AD}	72	mW
Continuous Forward Current	I_{FMAX}	20	mA
Peak Forward Current (duty cycle 1/10, 0.1ms Pulse Width)	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-30 to +80	°C
Storage Temperature Range	T_{STG}	-40 to +85	°C

● **ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C**

Characteristic	Symbol	Condition	Min.	Type	Max.	Unit
Forward Voltage	V_F	$I_F = 20mA$		1.9	2.4	V
Reverse Current	I_R	$V_R = 5V$	-	-	10	μA
Peak Wavelength	λ_P	$I_F = 20mA$	-	636	-	nm
Dominant Wavelength	λ_d	$I_F = 20mA$	-	622	-	-
Luminous Intensity	I_V	$I_F = 20mA$	-	71.5	-	mcd



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● **LUMINOUS INTENSITY BIN LIMITS**

Product specifications

■ **Luminous Intensity (Iv) Bin:**

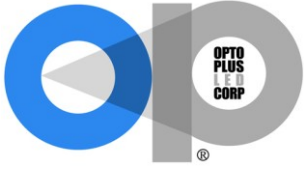
Color	Bin Code	Spec. Range
Ultra Bright Orange	N	28.5-45.0 mcd
	P	45.0-71.5 mcd
	Q	71.5-112.5 mcd

■ **Dominant Wavelength (λ_D) Bin:**

Color	Bin Code	Spec. Range
Ultra Bright Orange	-	615-630nm

■ **Forward Voltage (Vf) Bin:**

Color	Bin Code	Spec. Range
Ultra Bright Orange	-	1.6-2.4 V

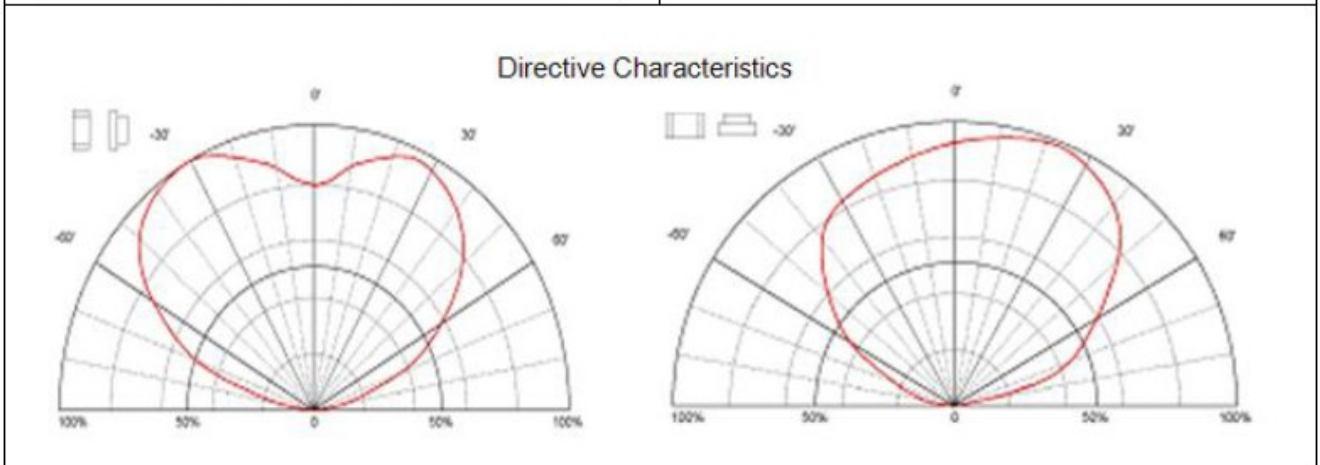
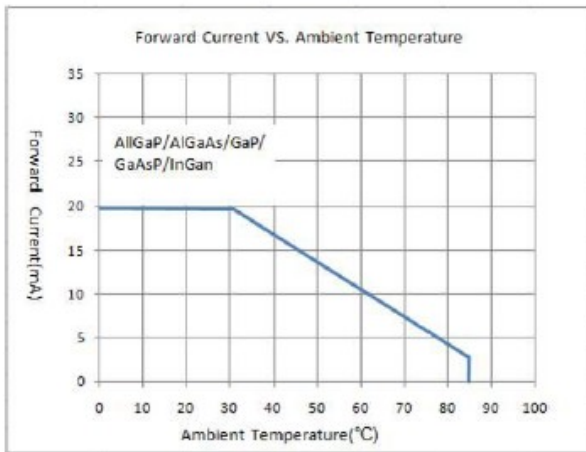
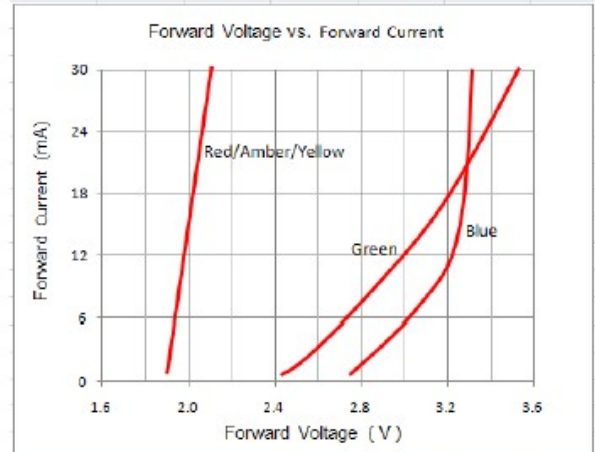
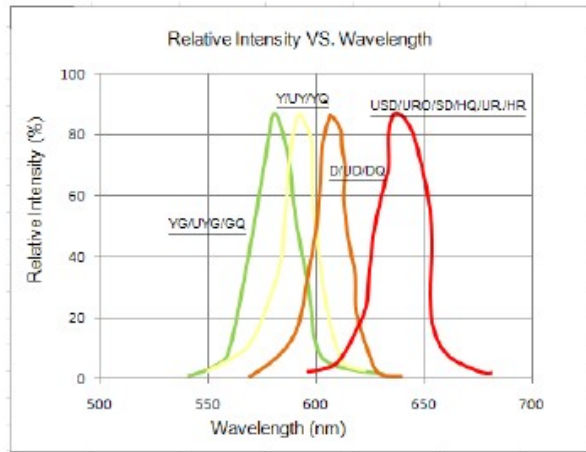


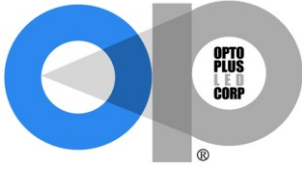
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● TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES





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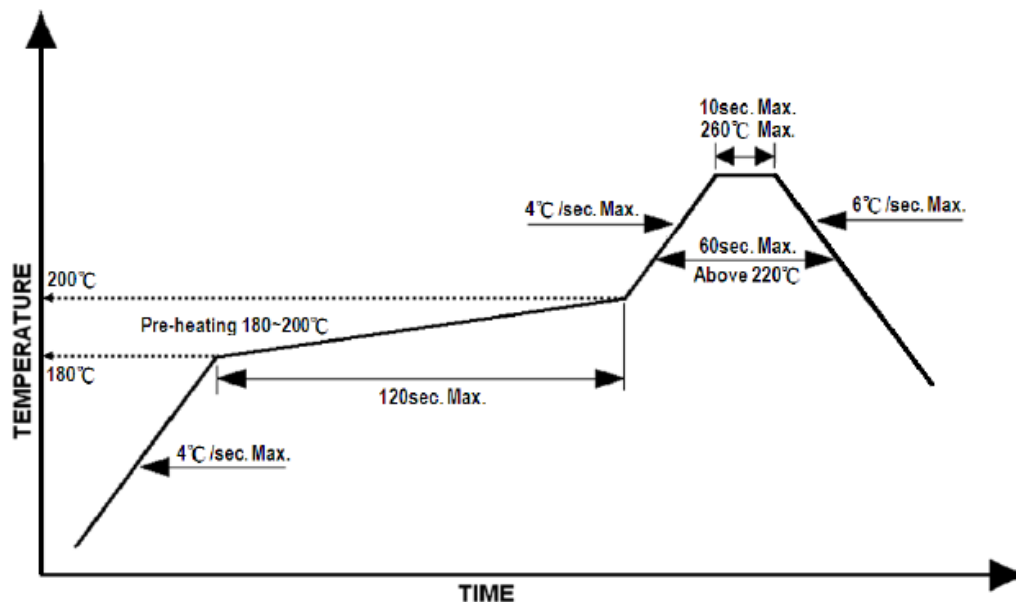
● REFLOW SOLDERING

Reflow Soldering

Recommend soldering paste specifications:

1. Operating temp.: Above 220 °C ,60 sec.
2. Peak temp.:260 °CMax.,10sec Max.
3. Never attempt next process until the component is cooled down to room temperature after reflow.
4. The recommended reflow soldering profile (measured on the surface of the LED terminal) is as following:

Lead-free Solder Profile



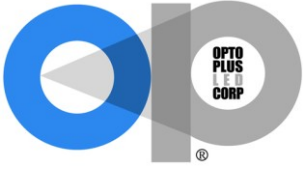
Reworking

- Rework should be completed within 5 seconds under 260 °C.
- The iron tip must not come in contact with the copper foil.
- Twin-head type is preferred.

Cleaning

Following are cleaning procedures after soldering:

- An alcohol-based solvent such as isopropyl alcohol (IPA) is recommended.
- Temperature x Time should be 50°C x 30sec. or <30°C x 3min
- Ultrasonic cleaning: < 15W/ bath; bath volume ≤ 1liter
- Curing: 100 °C max, <3min



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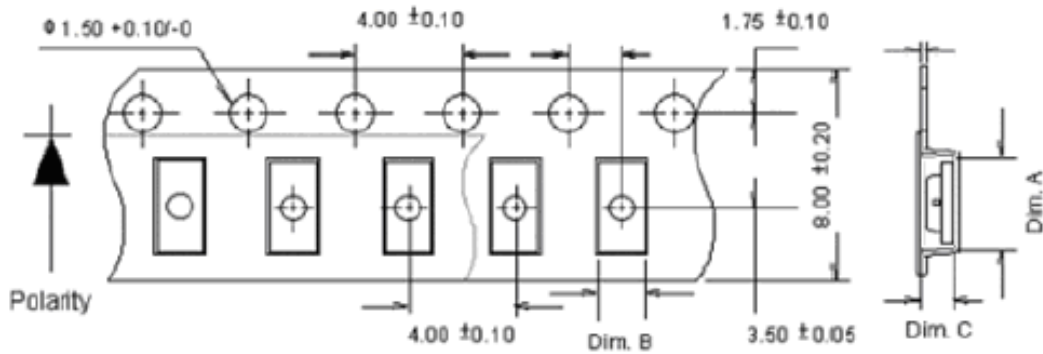
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● **TAPE SPECIFICATION : 4000 PCS PER REEL**

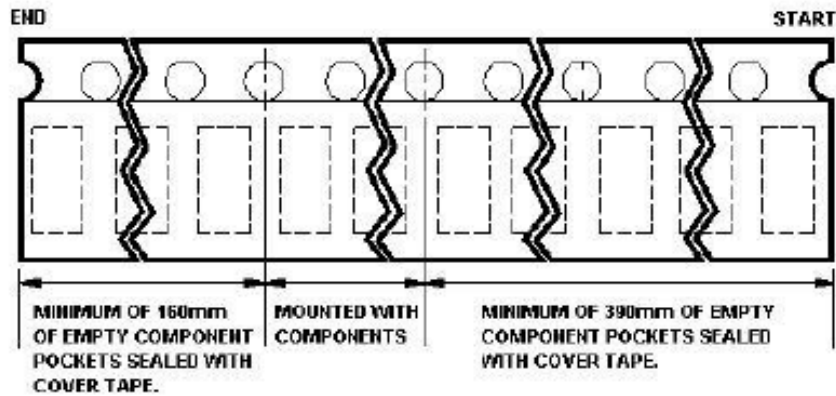
Packaging

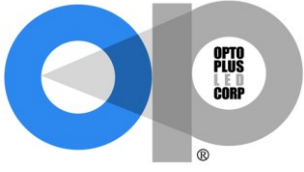
Tape Dimension



Part No.	Dim. A	Dim. B	Dim. C	Q'ty/Reel
HT-191	1.85±0.05	0.88±0.05	0.85±0.05	4K

Unit mm



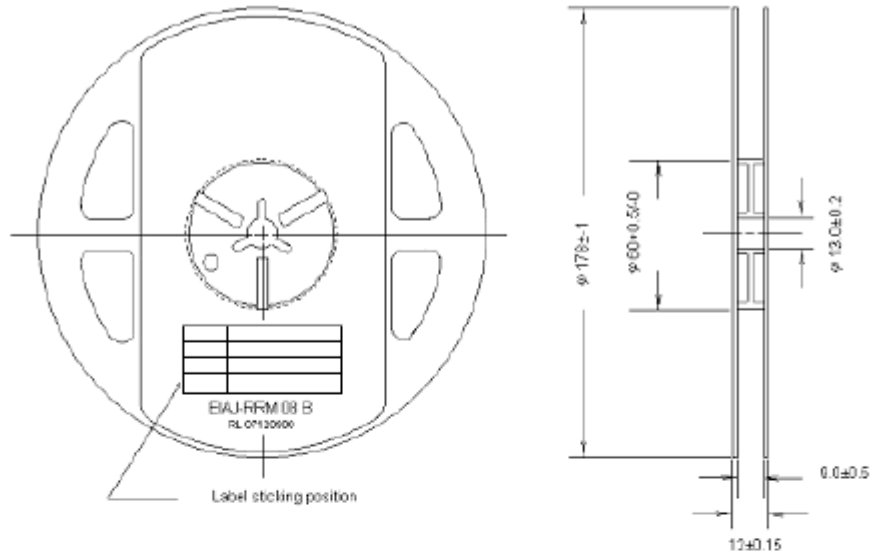


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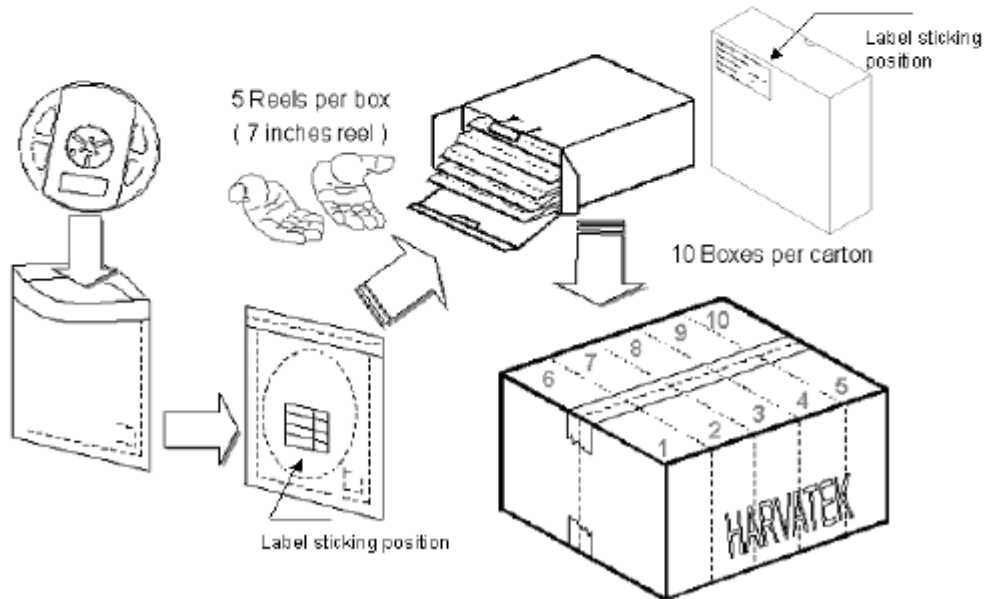
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● PACKING AND SHIPPING INSTRUCTION

Reel Dimension



Packing



5 boxes per carton is available depending on shipment quantity.