

## 5mm Oval Red Super Bright LED Lamps

- 5mm Oval with AlGaInP dice ◦
- Encapsulated with Red Diffused package ◦
- Long Leads

### Absolute Maximum Ratings : ( Ta=25°C )

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	PD	100	mw
Reverse Voltage	VR	5	V
Average Forward Current	LAF	30	mA
Peak Forward Current (Duty=0.1,10KHZ)	IPF	200	mA
Operatating Temperature Range	T <sub>OPR</sub>	-20°C to +80 °C	
Storage Temperature Range	T <sub>STG</sub>	-40°C to +100 °C	
Lead Soldering Temperature {1.6mm(0.063inch) From Body} 260°C For 3 Seconds			

### Electro-Optical Characteristics ( Ta = 25°C )

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage	I <sub>F</sub> = 20mA	V <sub>F</sub>		2.0	2.4	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>			10	uA
Luminous Intensity	I <sub>F</sub> = 20mA	I <sub>v</sub>		300		mcd
Wavelength	I <sub>F</sub> = 20mA	λ <sub>d</sub>		625	630	nm
Spectral Bandwidth	I <sub>F</sub> = 20mA	Δλ		18		nm
Viewing Angle	I <sub>F</sub> = 20mA	2θ 1/2		30/70		deg

Item: 506(5.6mm oval)

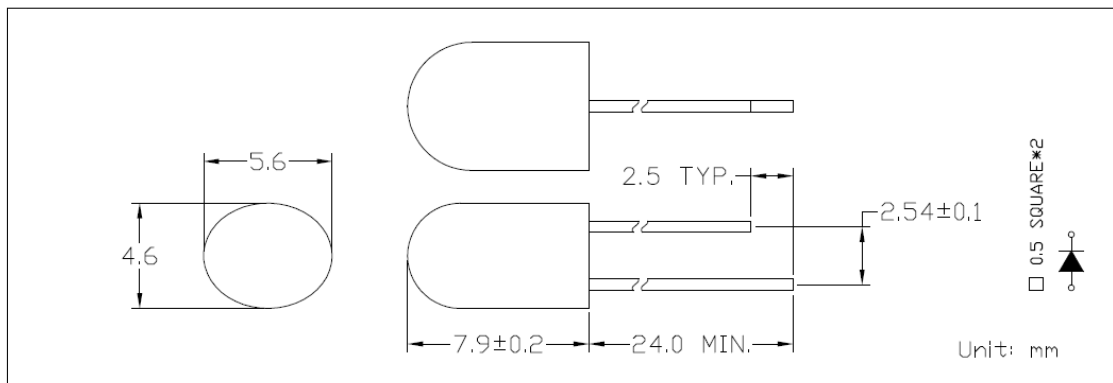


Fig 1. Forward Current vs. Forward Voltage

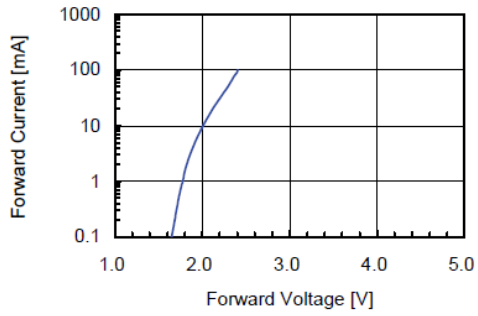


Fig 2. Relative Intensity vs. Forward Current

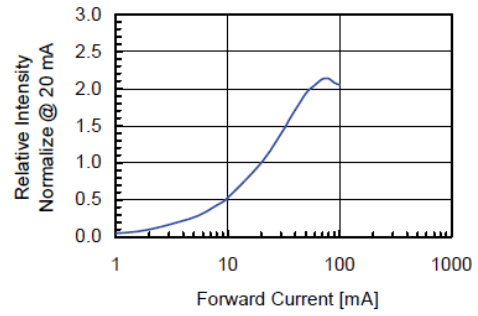


Fig 3. Forward Voltage vs. Temperature

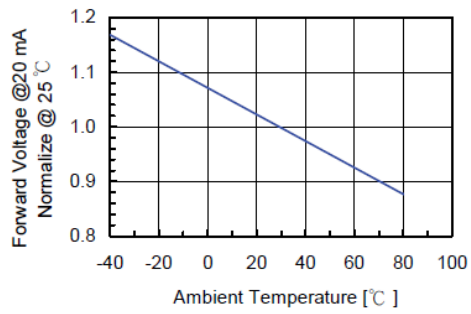


Fig 4. Relative Intensity vs. Temperature

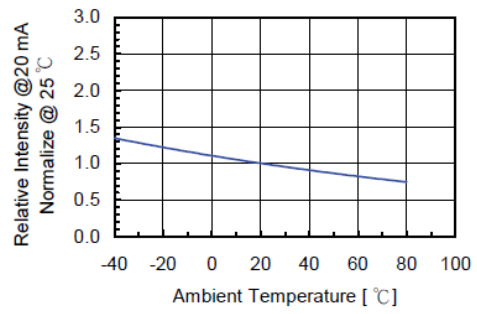
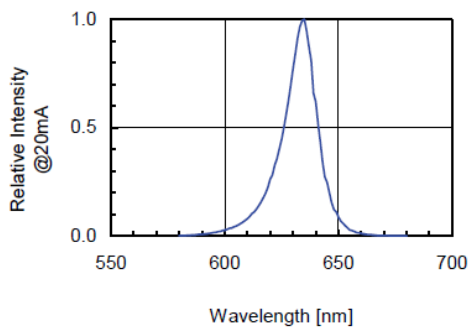


Fig 5. Relative Intensity vs. Wavelength



**•Soldering:**

1. Manual of soldering

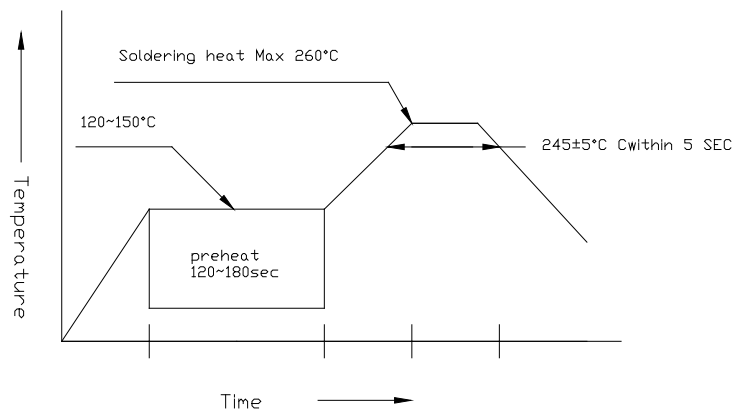
The temperature of the iron tip should not be higher than 260 °C and

Soldering within 3 seconds per solder-land is to be observed

2. DIP soldering (Wave Soldering):

Preheating: 120 °C ~ 150°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching)

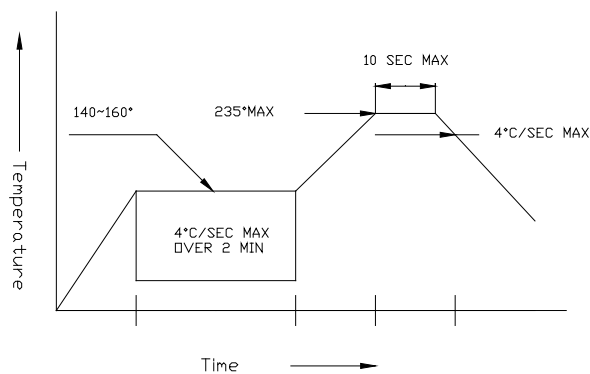


3. Reflow Soldering

Preheating: 140 °C ~ 160°C ±5°C, within 2 minutes.

Operation heating: 235 °C (Max) within 10 seconds (Max)

Gradual Cooling (Avoid quenching)



**•Handling:**

Care must be taken not to cause to the epoxy resin portion of LEDS while it is exposed to high temperature.

Care must be taken not rub the epoxy resin portion of LEDS with hard or sharp article such as the sand blast and the metal hook