

Features

- High current operation for greater luminous output
- Low Power Consumption and thermal resistance
- Can be used with automatic insertion equipment
- RoHS Compliant



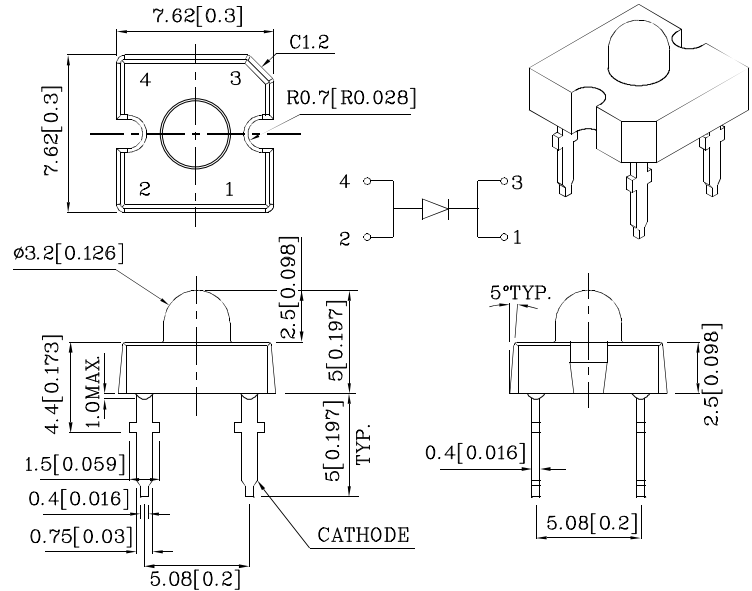
Benefits:

- Rugged design allows for easy maintenance
- Robust package for optimum reliability

Typical Applications:

- Automotive side markers
- Gaming and entertainment lighting
- Signs and road hazard indicators

Package Schematics



| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | MO (AlGaInP) | Unit |
|--|-----------|---------------------|------|
| Reverse Voltage | V_R | 5 | V |
| DC Forward Current | I_F | 70 | mA |
| Power Dissipation | P_D | 189 | mW |
| Operating Temperature | T_A | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -55 ~ +85 | |
| Lead Solder Temperature [1.5mm Below Seating Plane.][1] | | 260°C For 5 Seconds | |

| Operating Characteristics ($T_A=25^\circ\text{C}$) | | MO (AlGaInP) | Unit |
|--|--------------------|-----------------|---------------|
| Forward Voltage (Typ.) ($I_F=70\text{mA}$) | V_F | 2.3 | V |
| Forward Voltage (Max.) ($I_F=70\text{mA}$) | V_F | 2.7 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 10 | μA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F=70\text{mA}$) | λ_P | 610* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F=70\text{mA}$) | λ_D | 601* | nm |
| Spectral Line Full Width At Half Maximum (Typ.) ($I_F=70\text{mA}$) | $\Delta\lambda$ | 29 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 30 | pF |
| Thermal Resistance (Typ.) | $R_{\theta j-pin}$ | 125 | °C/W |

1.No Reflow soldering .

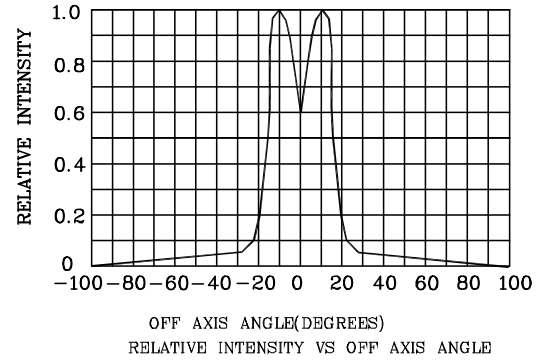
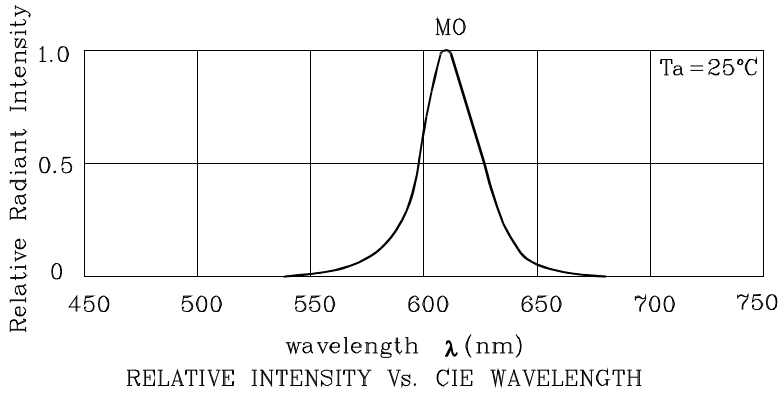
| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F=70\text{mA}$) cd | | Luminous Flux CIE127-2007* ($I_F=70\text{mA}$) lm | Wavelength CIE127-2007* λ_P nm | Viewing Angle 2 θ 1/2 |
|-------------|----------------|-------------------|-------------|--|--------------|---|--|---------------------------------|
| | | | | min. | typ. | typ. | | |
| XSMO783W | Orange | AlGaInP | Water Clear | 3.6 2* | 5.49 3.3* | 1.8* | 610* | 30° |

1.Luminous intensity is measured with an integrating sphere after the device has stabilized.

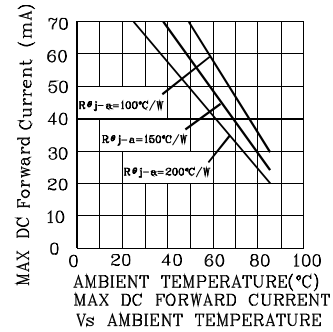
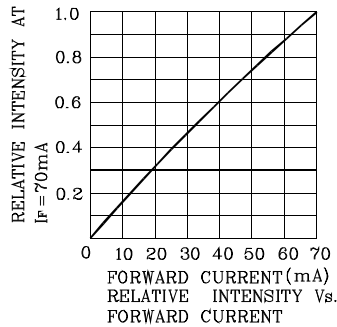
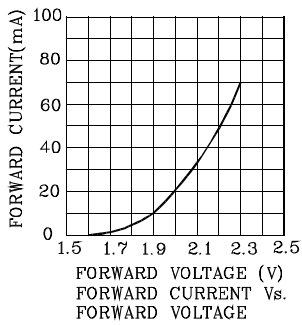
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

3. LEDs are binned according to their Luminous intensity.

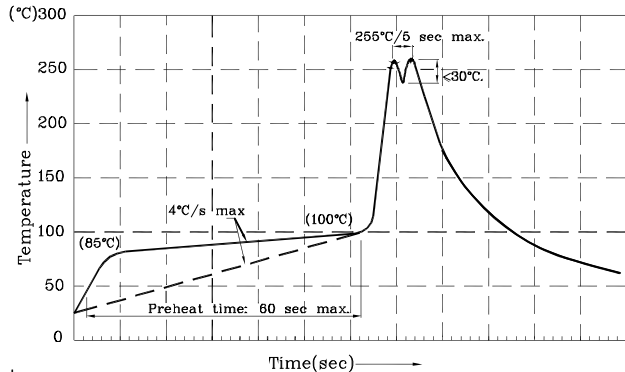
* Luminous intensity / luminous flux value and wavelength are in accordance with CIE127-2007 standards.



❖ MO



Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



- Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
 2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
 3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
 4. Fixtures should not incur stress on the component when mounting and during soldering process.
 5. SAC 305 solder alloy is recommended.
 6. No more than one wave soldering pass.

Remarks:

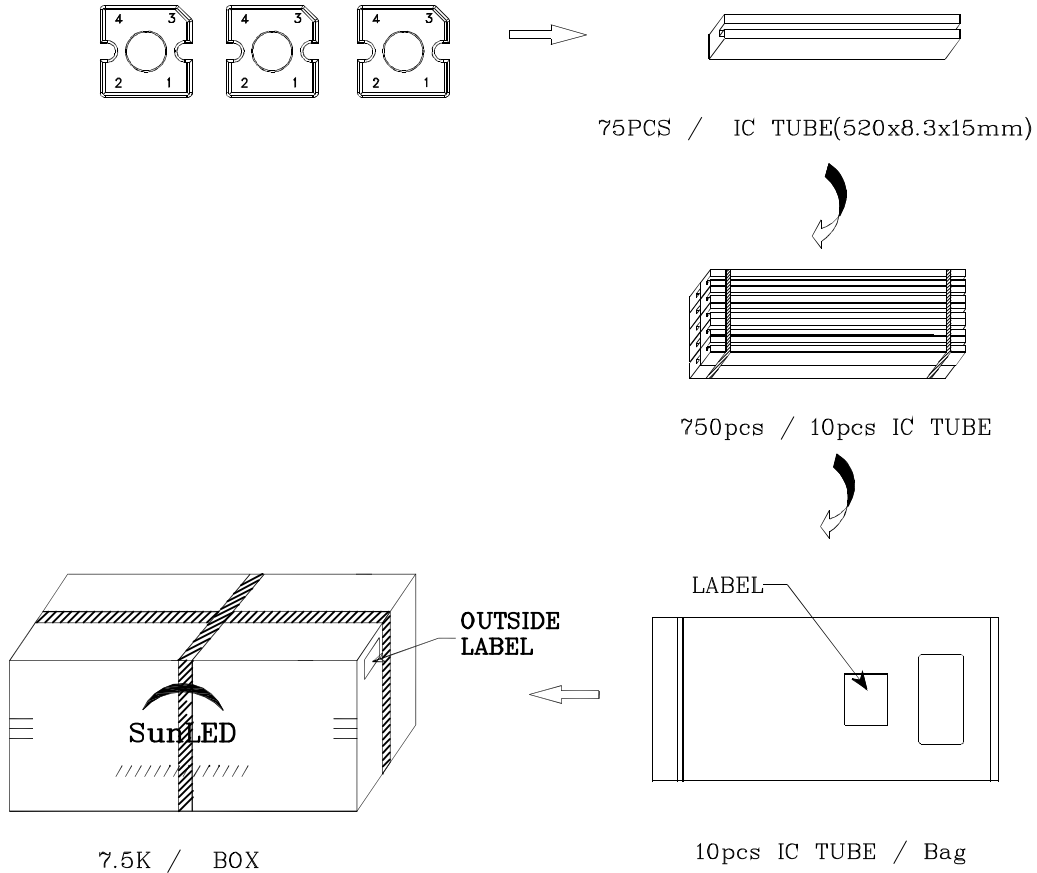

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

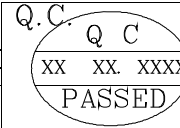

1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



PACKING & LABEL SPECIFICATIONS

| | |
|--|-----------|
|  | |
| P/NO : XSxxx783x | |
| QTY : 750 pcs | CODE: XXX |
| S/N : XX | |
| LOT NO: | |
|  xxxxxxxxxxxxxxxxxxxxxxxx | |
| RoHS Compliant | |