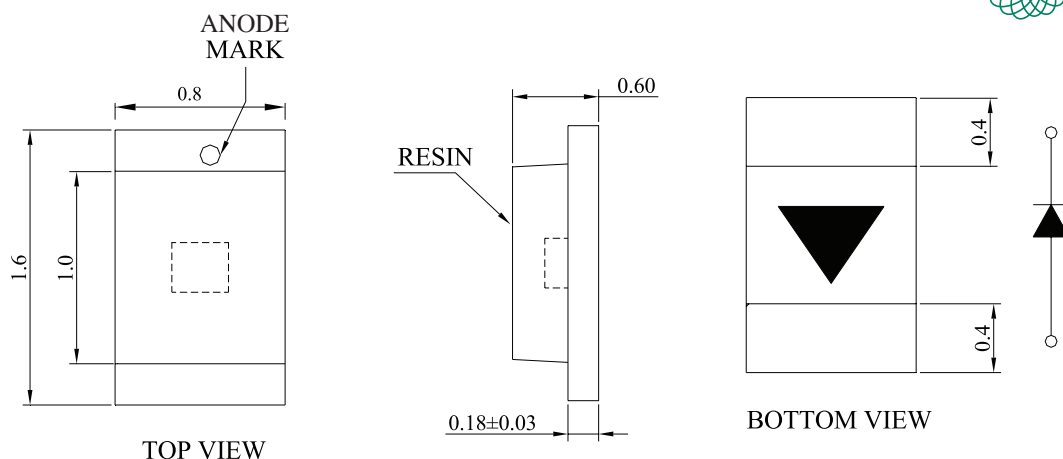


SMD Chip LED



Package Dimensions:



All dimensions are in mm
Tolerance: $\pm 0.1\text{mm}$

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|--------------|--|------------------|
| Power Dissipation | P_D | 66 | $^\circ\text{C}$ |
| Reverse Voltage | V_R | 4 | V |
| D.C. Forward Current | I_f | 30 | mA |
| Pulsed Forward Current (1 / 10 Duty Cycle, 0.1ms Pulse Width) | I_f (Peak) | 80 | mA |
| Operating Temperature Range | $T_{opr.}$ | -40 to +80 | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{stg.}$ | -40 to +85 | $^\circ\text{C}$ |
| Soldering Temperature | $T_{sld.}$ | Reflow Soldering: 260°C for 10sec. | |

Electrical & Optical Characteristics: Hyper Red

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-------------------------|-----------------|---------------------|------|------|------|---------------|
| Luminous Intensity | I_v | $I_f = 20\text{mA}$ | - | 15 | - | mcd |
| Forward Voltage | V_f | $I_f = 20\text{mA}$ | - | 1.8 | 2.2 | V |
| Peak Wavelength | λ_p | $I_f = 20\text{mA}$ | - | 660 | - | nm |
| Dominant Wavelength | λ_d | $I_f = 20\text{mA}$ | - | 643 | - | nm |
| Reverse Current | I_r | $V_r = 5\text{V}$ | - | - | 100 | μA |
| Viewing Angle | $2\theta_{1/2}$ | $I_f = 20\text{mA}$ | - | 140 | - | deg |
| Spectrum Line Halfwidth | $\Delta\lambda$ | $I_f = 20\text{mA}$ | - | 20 | - | nm |

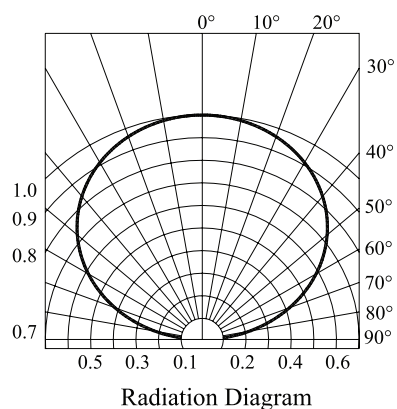
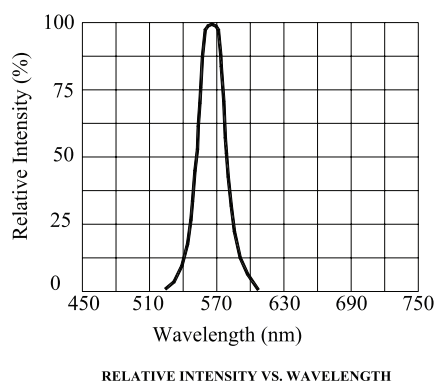
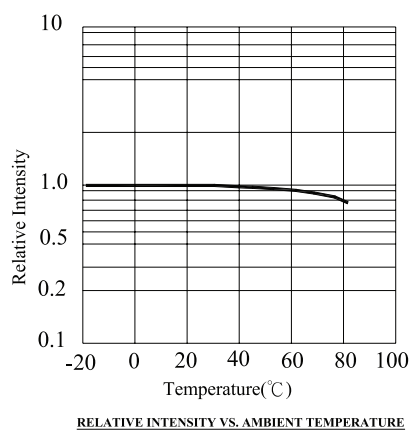
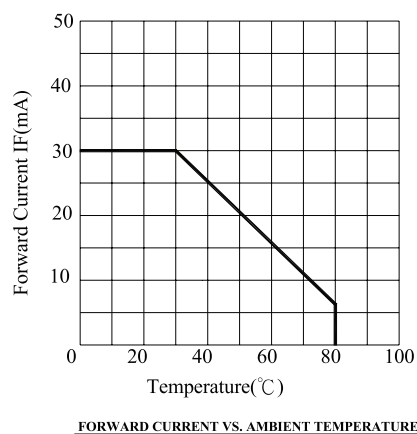
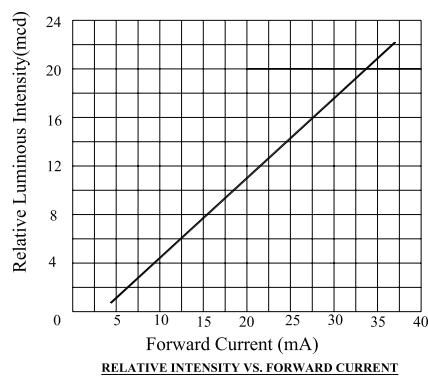
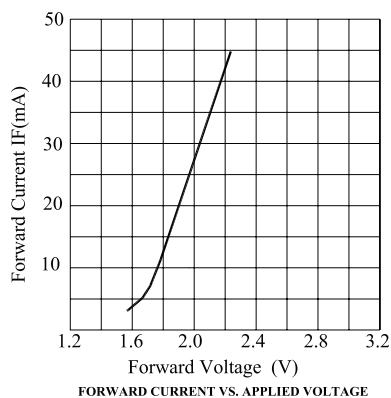
Note: 1. The data is tested by an IS tester
2. Customer's special requirements are also welcome.

SMD Chip LED



Typical Electrical & Optical Characteristics Curves:

(25°C Ambient temperature unless otherwise noted)



Recommended Storage Environment:

- Temperature: 5°C to 30°C (41°F to 86°F)
- Humidity: 60% RH Max.
- Use within 7 days after opening of sealed vapour/ESD barrier bags

If moisture absorbent material (silica gel) has faded away or LEDs have exceeded the storage time, baking treatment should be performed using the following conditions:

- Baking Treatment : 60 ± 5°C for 24 hours
- Fold the opened bag firmly and keep in dry environment

Reflow Soldering

Recommended use of upper and lower heater type reflow furnace.

- 260°C max for up to 10 seconds, one time only
- Pre-heat is 150°C max for up to 2 minutes max
- In case of screen-printing, keep metal mask thickness between 0.2mm and 0.3mm

Cleaning

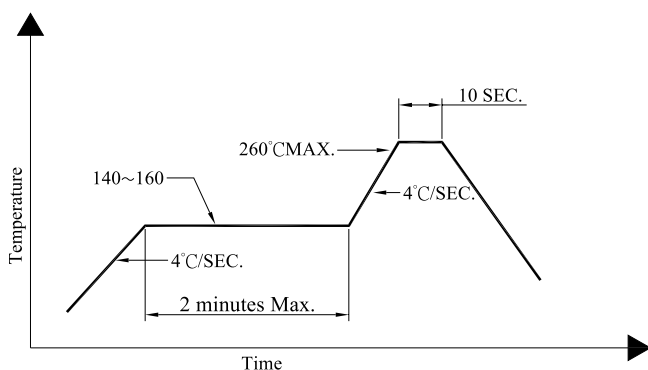
Surface condition of this device may change when organic solvents such as trichloroethylene or acetone were applied.

- Avoid using organic solvent
- Recommend ultrasonic method 300W max.

Packaging

- EIA-481A standard package
- In 8mm tape on 4,000pcs diameter reels sealed in vapour/ESD barrier bags

Reflow Temp / Time:



Part Number Table

| LED Chip | | Lens Colour | Part Number |
|---------------|-----------------|----------------|-------------|
| Material | Emitting Colour | | |
| AlGaAs / GaAs | Red | White diffused | 703-0112 |

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