

R404036R-FLWC-OK-218

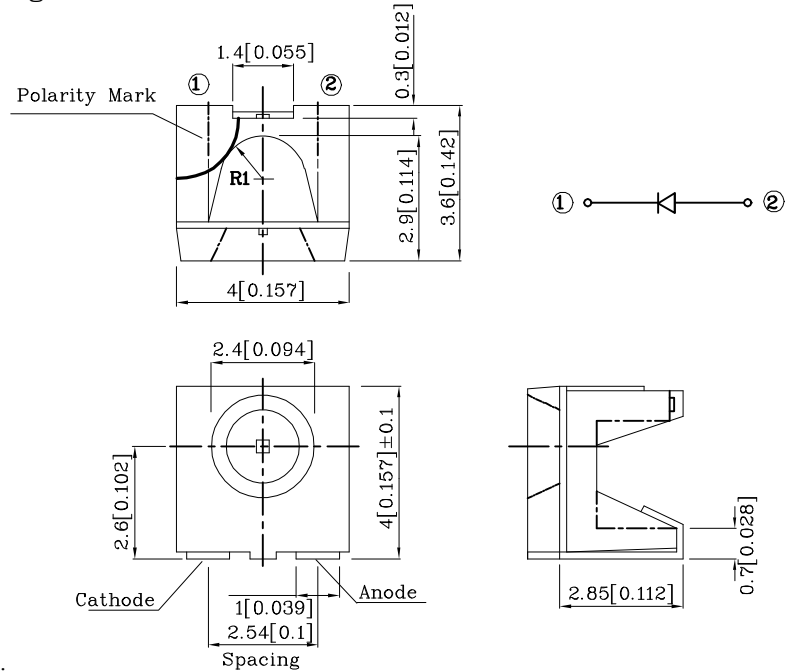
Technical Data Sheet

4.0 x 4.0mm Right Angle Surface Mount LED Lamp

Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 500pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant

Package Schematics



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | Orange (AlGaInP) | Unit |
|--|-----------|---------------------|------|
| Reverse Voltage | V_R | 5 | V |
| Forward Current | I_F | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 195 | mA |
| Power Dissipation | P_D | 75 | mW |
| Operating Temperature | T_A | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -40 ~ +85 | |

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

| Operating Characteristics ($T_A=25^\circ\text{C}$) | | Orange (AlGaInP) | Unit |
|---|-----------------|---------------------|---------------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 2.1 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 2.5 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 10 | μA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_P | 610* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_D | 601* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$) | $\Delta\lambda$ | 29 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 15 | pF |

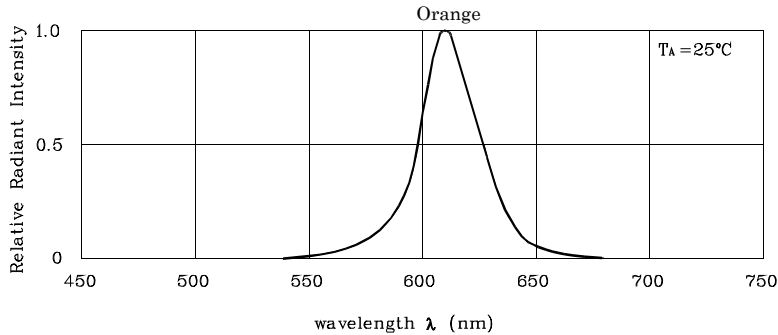
| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) med | | Wavelength CIE127-2007* nm λ_P | Viewing Angle 2θ 1/2 |
|----------------------|----------------|-------------------|-------------|--|--------------|--|--------------------------------|
| | | | | min. | typ. | | |
| R404036R-FLWC-OK-218 | Orange | AlGaInP | Water Clear | 220* 80* | 447* 218* | 610* | 120° |

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

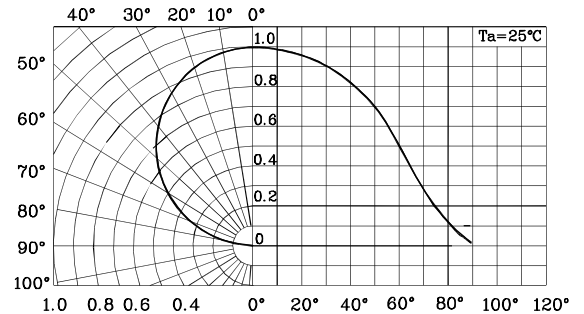
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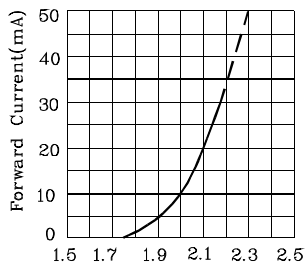
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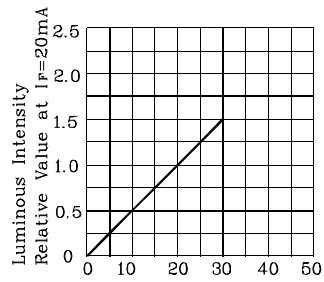
RELATIVE INTENSITY Vs. CIE WAVELENGTH



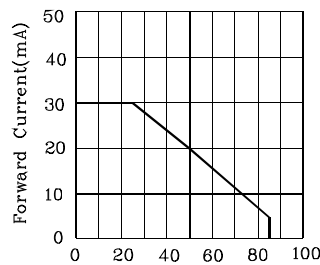
❖ Orange



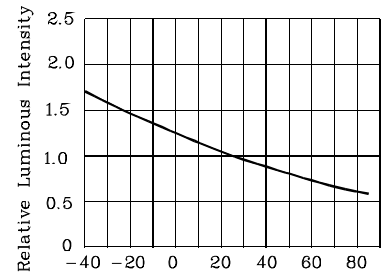
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



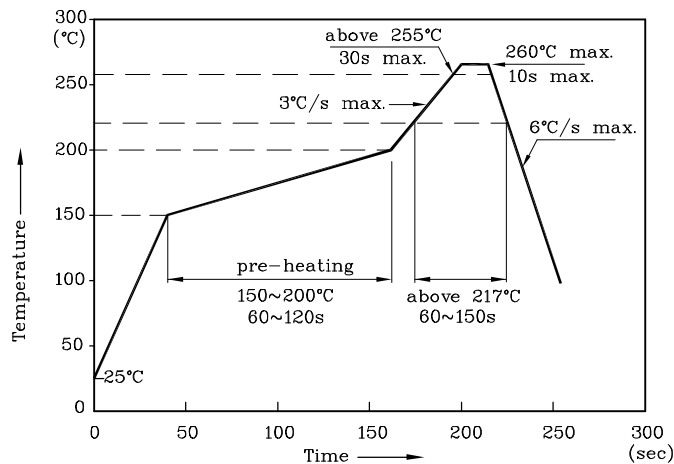
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)



Notes:

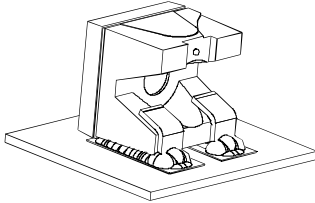
1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
2. Do not apply any stress to the LED during high temperature conditions.
3. Maximum number of soldering passes: 2

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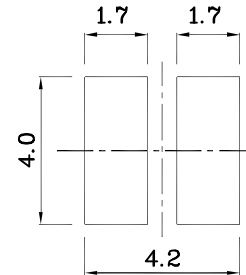
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4.0 x 4.0mm Right Angle Surface Mount LED Lamp

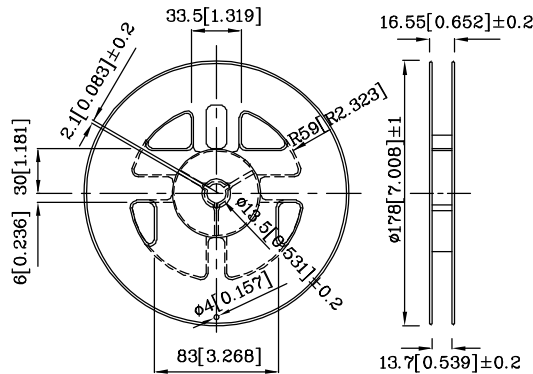
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



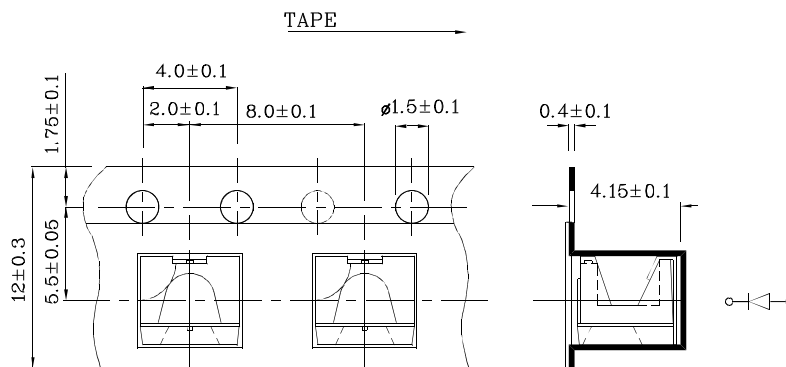
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



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.