

Part Number: APG1005SEC-T

Super Bright Orange

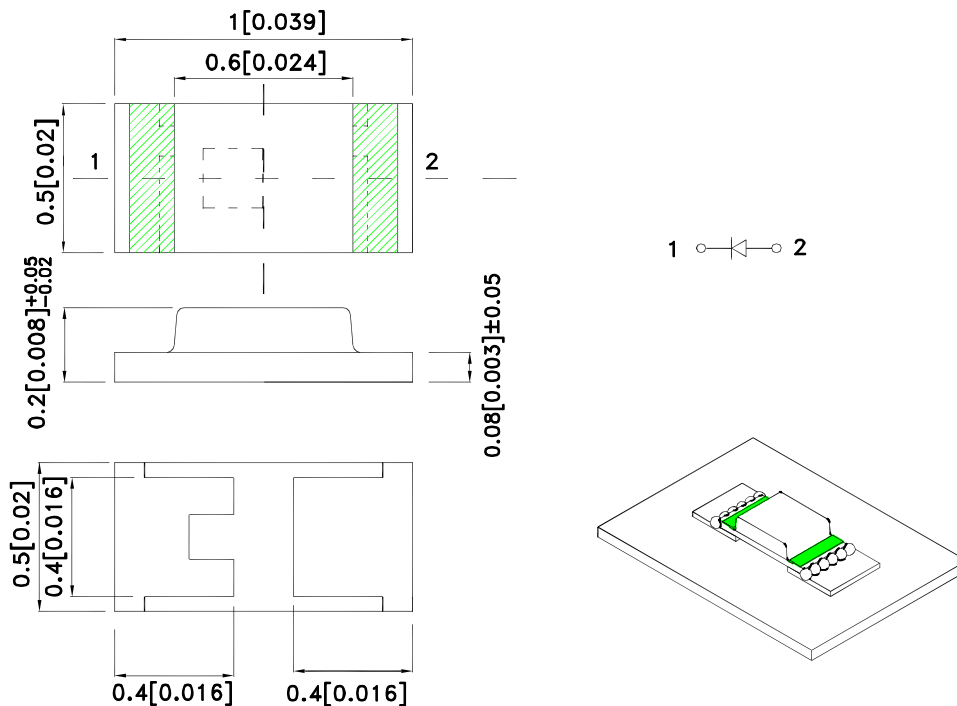
Features

- 1.0mmX0.5mm SMT LED, 0.2mm thickness.
- Low power consumption.
- Wide viewing angle.
- Compatible with automatic placement equipment.
- Ideal for backlight and indicator.
- Package: 4000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Super Bright Orange source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|--------------|-------------------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APG1005SEC-T | Super Bright Orange (AlGaInP) | Water Clear | 55 | 153 | 120° |
| | | | *40 | *90 | |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.
- * Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | Super Bright Orange | 611 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Super Bright Orange | 605 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Orange | 17 | | nm | IF=20mA |
| Vf [2] | Forward Voltage | Super Bright Orange | 2.05 | 2.4 | V | IF=20mA |
| Ir | Reverse Current | Super Bright Orange | | 10 | uA | VR=5V |

Notes:

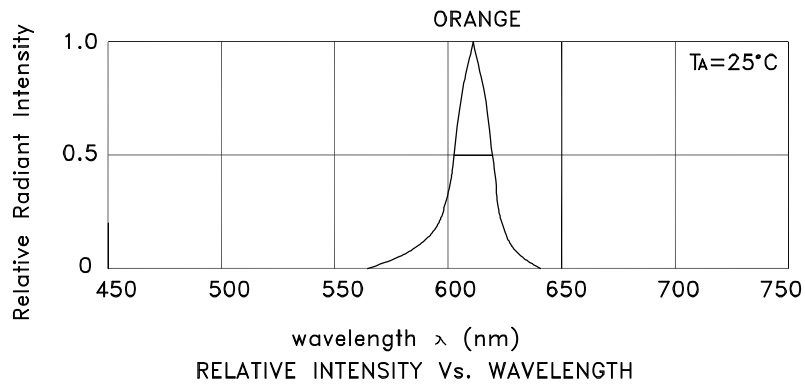
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3.Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

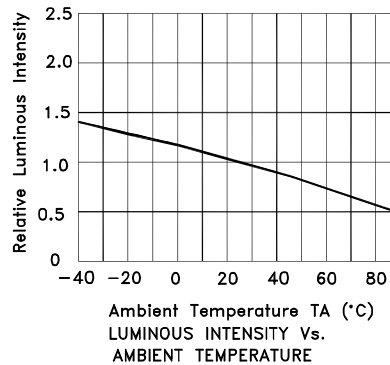
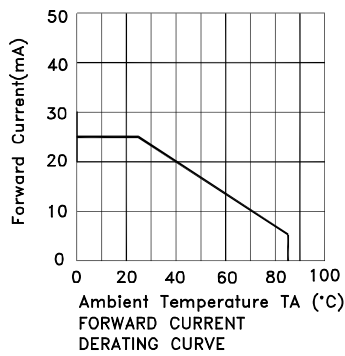
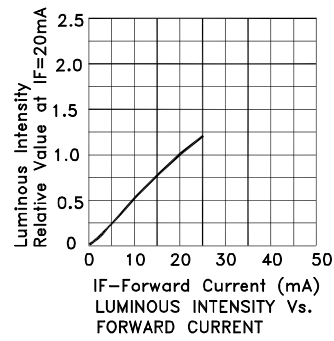
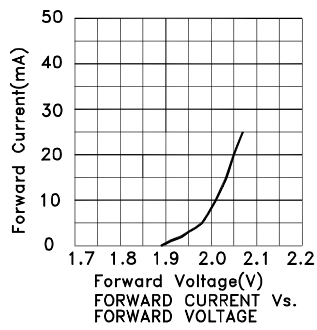
| Parameter | Super Bright Orange | Units |
|--------------------------|---------------------|-------|
| Power dissipation | 60 | mW |
| DC Forward Current | 25 | mA |
| Peak Forward Current [1] | 120 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature | -40°C To +85°C | |

Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.



Super Bright Orange APG1005SEC-T



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Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

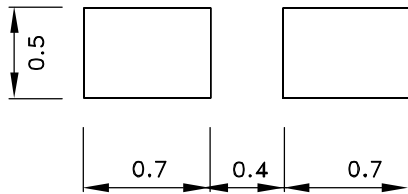
Reflow Soldering Profile For Lead-free SMT Process.



NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

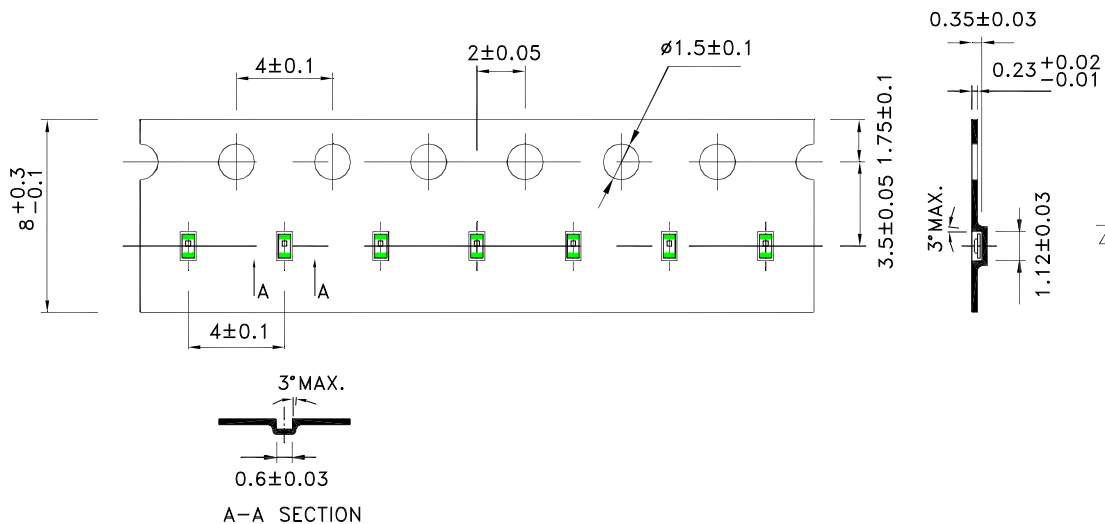
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

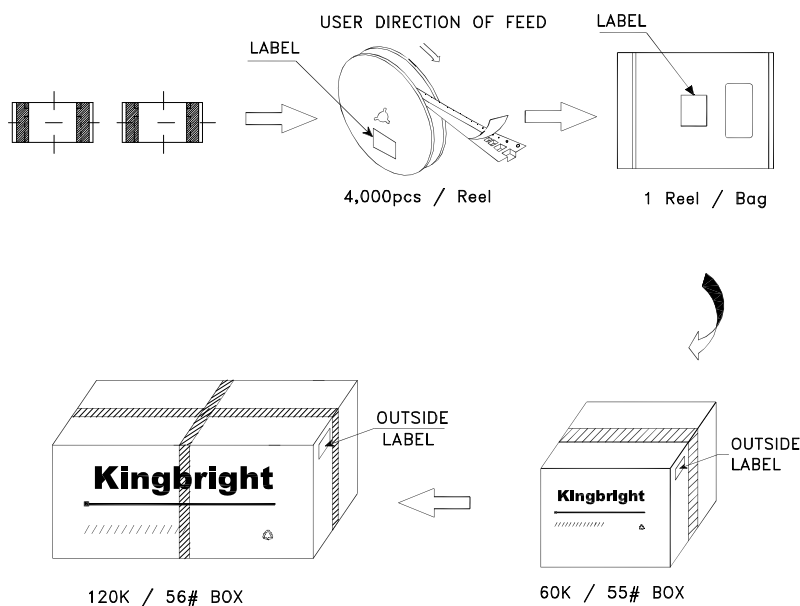



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APG1005SEC-T



| | | |
|---|------|-----------------------------|
| Kingbright | | |
| P/NO: APG1005xxx | | |
| QTY: 4000 pcs | Q.C. | Q C xx xx xxxx PASSED |
| S/N: XXXX | | |
| CODE: XXX | | |
| LOT NO: | | |
|  <small>xxxxxxxxxxxxxxxxxxxxxxxx</small> | | |
| RoHS Compliant | | |

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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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