Kingbright

**SUBMINIATURE SOLID STATE LAMP**

Part Number: AM2520SECK03

Super Bright Orange

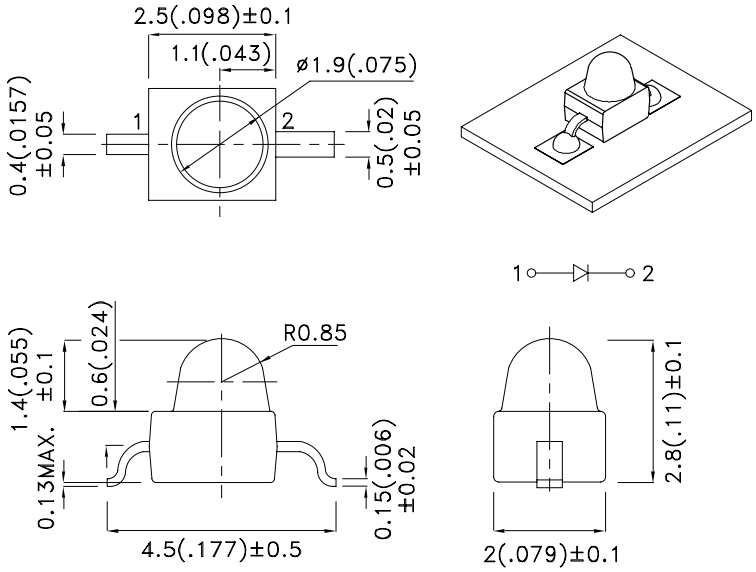
## Features

- SUBMINIA TURE PACKAGE.
- WIDE VIEWING ANGLE.
- GULL WING LEAD.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- PACKAGE : 1000PCS / REEL.
- RoHS COMPLIANT.

## Description

The Super Bright Orange device is made with DH InGaAlP (on GaAs substrate) light emitting diode chip.

## Package Dimensions




Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.
5. 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 |
| AM2520SECK03 | Super Bright Orange (InGaAlP) | WATER CLEAR | 900 | 1800 | 20° |

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

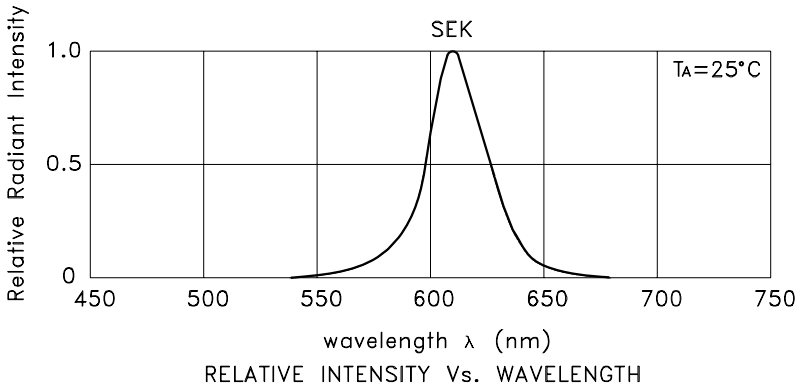
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|---|---|---|---|---|---|---|
| λpeak | Peak Wavelength | Super Bright Orange | 610 | | nm | $I_F$=20mA |
| λD [1] | Dominant Wavelength | Super Bright Orange | 601 | | nm | $I_F$=20mA |
| Δλ1/2 | Spectral Line Half-width | Super Bright Orange | 29 | | nm | $I_F$=20mA |
| C | Capacitance | Super Bright Orange | 15 | | pF | $V_F$=0V;f=1MHz |
| $V_F$ [2] | Forward Voltage | Super Bright Orange | 2.1 | 2.5 | V | $I_F$=20mA |
| $I_R$ | Reverse Current | Super Bright Orange | | 10 | uA | $V_R$=5V |

Notes:
1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

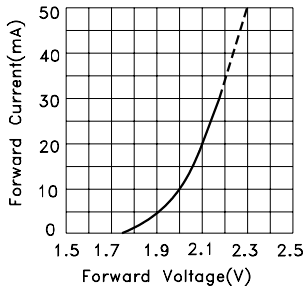
| Parameter | Super Bright Orange | Units |
|---|---|---|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 195 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature | -40°C To +85°C | |

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

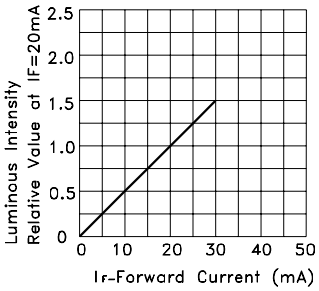


RELATIVE INTENSITY Vs. WAVELENGTH

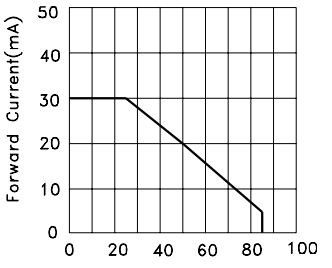
**Super Bright Orange AM2520SECK03**



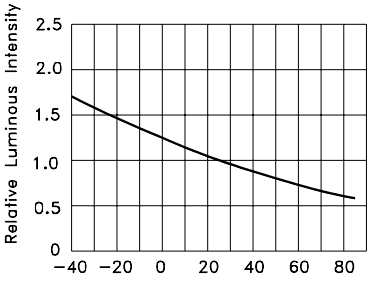
FORWARD CURRENT Vs.
FORWARD VOLTAGE



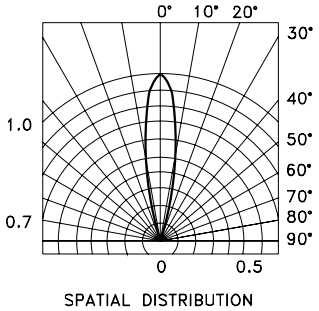
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



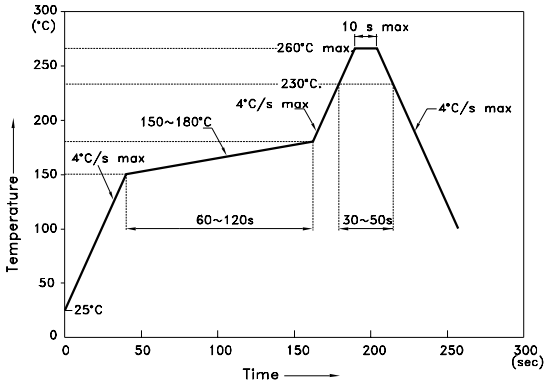
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

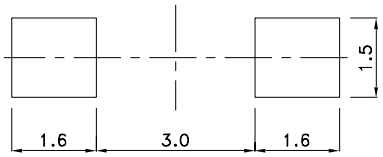
**AM2520SECK03**

Reflow Soldering Profile For Lead-free SMT Process.

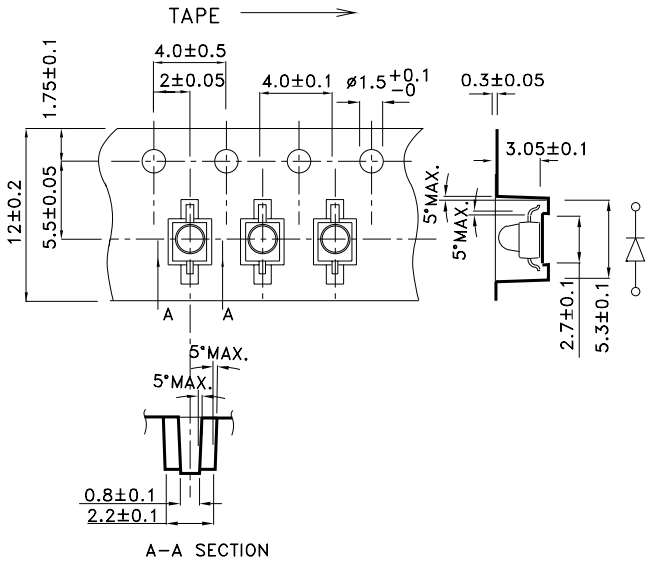



NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

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




**Tape Specifications**
**(Units : mm)**



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**PACKING & LABEL SPECIFICATIONS** **AM2520SECK03**

