

PRELIMINARY SPEC

Part Number: KPHCM-2012SECK
SUPER BRIGHT ORANGE

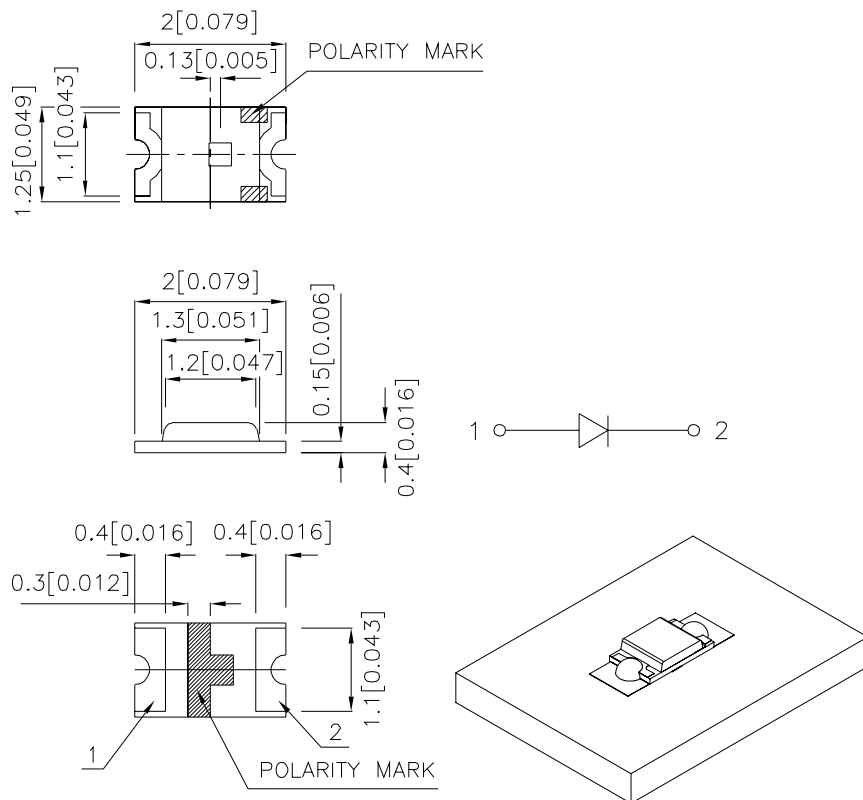
Features

- 2.0x1.25mm SMT LED, 0.5mm MAX. THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- 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 ± 0.1 (0.004") unless otherwise noted.
3. Specifications are subject to change without 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. | 2 θ 1/2 |
| KPHCM-2012SECK | SUPER BRIGHT ORANGE (InGaAlP) | WATER CLEAR | 50 | 160 | 110° |

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 |
|-----------------------|--------------------------|---------------------|------|------|-------|-----------------|
| λ_{peak} | Peak Wavelength | Super Bright Orange | 610 | | nm | IF=20mA |
| $\lambda_D[1]$ | Dominant Wavelength | Super Bright Orange | 601 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Orange | 29 | | nm | IF=20mA |
| C | Capacitance | Super Bright Orange | 15 | | pF | VF=0V;f=1MHz |
| VF[2] | Forward Voltage | Super Bright Orange | 2.1 | 2.5 | V | IF=20mA |
| IR | Reverse Current | Super Bright Orange | | 10 | uA | VR = 5V |

Notes:

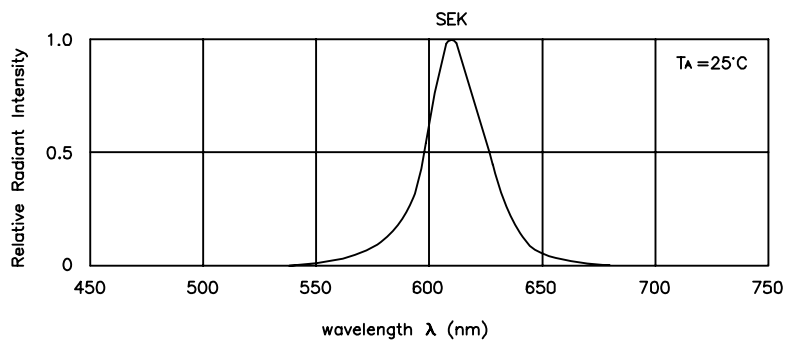
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.

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/Storage Temperature | -40°C To +85°C | |

Note:

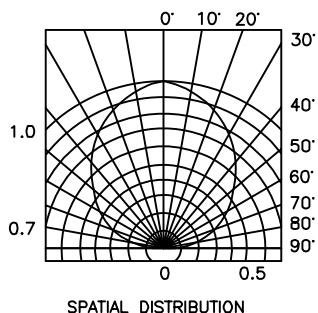
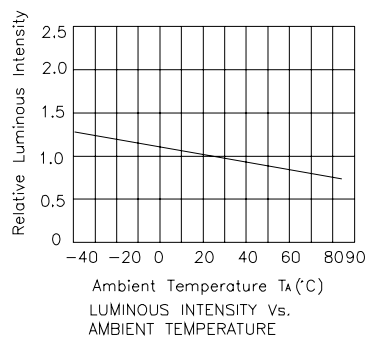
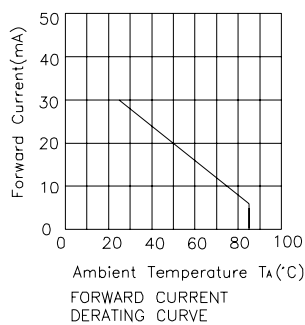
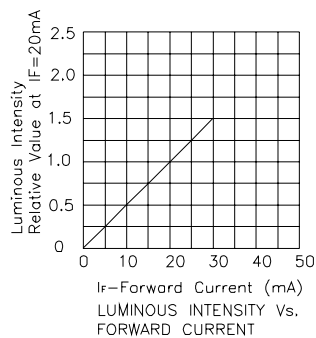
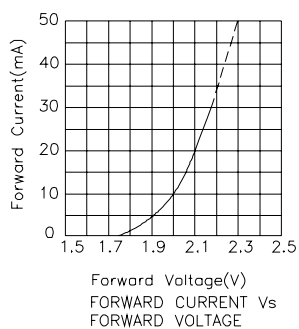
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



RELATIVE INTENSITY Vs. WAVELENGTH

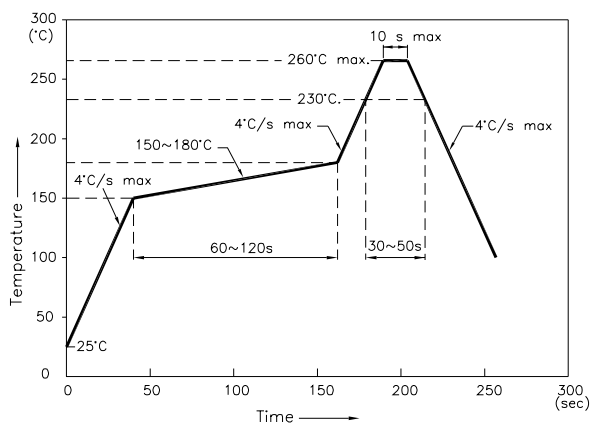
Super Bright Orange

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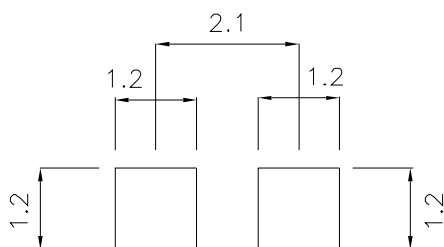
Reflow Soldering Profile For Lead-free SMT Process.



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)

