

### SUBMINIATURE SOLID STATE LAMP

Part Number: KM2520SECK01

Super Bright Orange

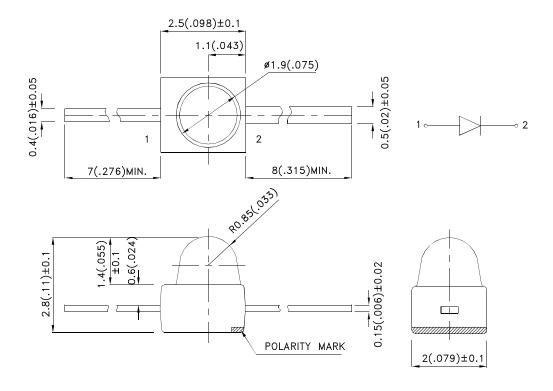
### **Features**

- Subminiature package.
- Long life solid state reliability.
- Low package profile.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

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

# **Package Dimensions**



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
   The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

DATE: APR/01/2013 SPEC NO: DSAD0329 **REV NO: V.10A** PAGE: 1 OF 4 **CHECKED: Allen Liu** DRAWN: F.Cui APPROVED: WYNEC ERP: 1202000611

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### **Selection Guide**

| Part No.     | Dice                          | Lens Type   | lv (mcd) [2]<br>@ 20mA |       | Viewing<br>Angle [1] |
|--------------|-------------------------------|-------------|------------------------|-------|----------------------|
|              |                               | ,,          | Min.                   | Тур.  | 201/2                |
| KM2520SECK01 | Super Bright Orange (AlGaInP) | Water Clear | 1900                   | 2700  | 20°                  |
|              |                               | water Clear | *1000                  | *1800 |                      |

#### Notes:

- 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

# Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter                | Device              | Тур. | Max. | Units | Test Conditions     |
|--------|--------------------------|---------------------|------|------|-------|---------------------|
| λpeak  | Peak Wavelength          | Super Bright Orange | 610  |      | nm    | IF=20mA             |
| λD [1] | Dominant Wavelength      | Super Bright Orange | 601  |      | nm    | IF=20mA             |
| Δλ1/2  | Spectral Line Half-width | Super Bright Orange | 29   |      | nm    | IF=20mA             |
| С      | 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    | V <sub>R</sub> = 5V |

- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

## Absolute Maximum Ratings at TA=25°C

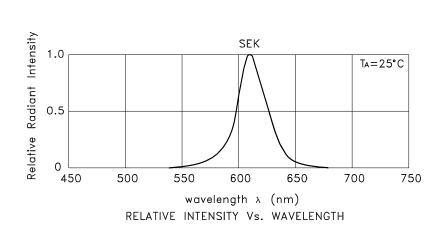
| Parameter                     | Super Bright Orange | Units |  |  |
|-------------------------------|---------------------|-------|--|--|
| Power dissipation             | 75                  | mW    |  |  |
| DC Forward Current            | 30                  | mA    |  |  |
| Peak Forward Current [1]      | 195                 | mA    |  |  |
| Reverse Voltage               | 5                   | V     |  |  |
| Operating/Storage Temperature | -40°C To +85°C      |       |  |  |
| Lead Solder Temperature [2]   | 260°C For 3 Seconds |       |  |  |
| Lead Solder Temperature [3]   | 260°C For 5 Seconds |       |  |  |

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
   5mm below package base.

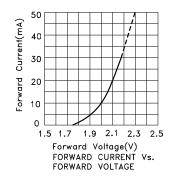
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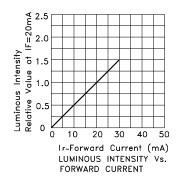
Luminous intensity/ luminous Flux: +/-15%.
 \*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

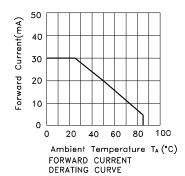
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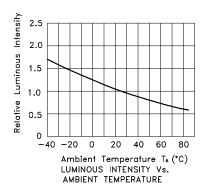


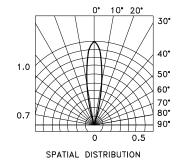
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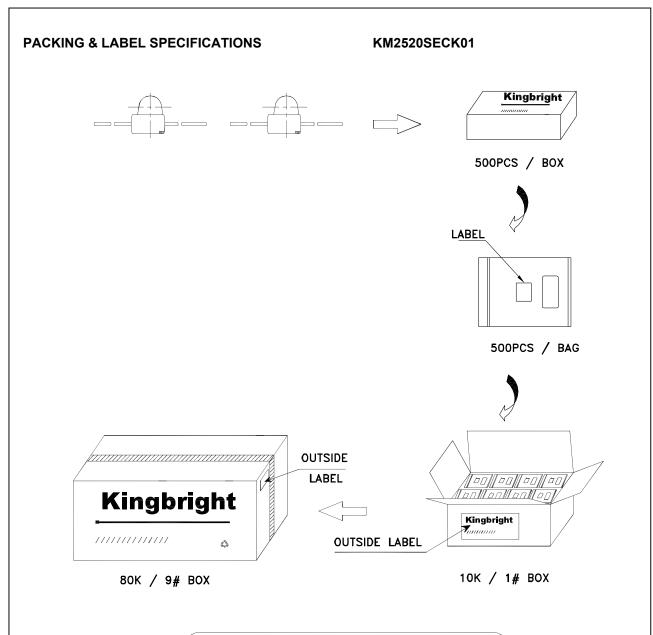


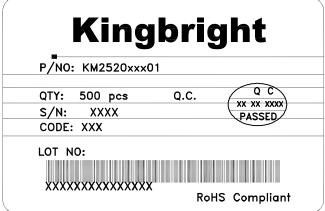


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Detailed application notes are listed on our website. http://www.kingbright.com/application\_notes

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