1.6X0.8mm SMD CHIP LED LAMP

Part Number: KP-1608SGC    Super Bright Green

Features
- 1.6mmX0.8mm SMT LED, 1.1mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

Package Dimensions

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±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

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Dice</th>
<th>Lens Type</th>
<th>$I_v\ (mcd)\ [2]\ @\ 20mA$</th>
<th>Viewing Angle $[1]$</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP-1608SGC</td>
<td>Super Bright Green (GaP)</td>
<td>Water Clear</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

#### Notes:
1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is $1/2$ of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.
3. Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

### Electrical / Optical Characteristics at $TA=25^\circ C$

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Device</th>
<th>Typ.</th>
<th>Max.</th>
<th>Units</th>
<th>Test Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\lambda_{\text{peak}}$</td>
<td>Peak Wavelength</td>
<td>Super Bright Green</td>
<td>565</td>
<td>nm</td>
<td>$I_f=20mA$</td>
<td></td>
</tr>
<tr>
<td>$\lambda_D\ [1]$</td>
<td>Dominant Wavelength</td>
<td>Super Bright Green</td>
<td>568</td>
<td>nm</td>
<td>$I_f=20mA$</td>
<td></td>
</tr>
<tr>
<td>$\Delta\lambda_{1/2}$</td>
<td>Spectral Line Half-width</td>
<td>Super Bright Green</td>
<td>30</td>
<td>nm</td>
<td>$I_f=20mA$</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>Super Bright Green</td>
<td>15</td>
<td>pF</td>
<td>$V_i=0V; f=1MHz$</td>
<td></td>
</tr>
<tr>
<td>$V_F\ [2]$</td>
<td>Forward Voltage</td>
<td>Super Bright Green</td>
<td>2.2</td>
<td>2.5</td>
<td>V</td>
<td>$I_f=20mA$</td>
</tr>
<tr>
<td>$I_R$</td>
<td>Reverse Current</td>
<td>Super Bright Green</td>
<td>10</td>
<td>$\mu A$</td>
<td>$V_i=5V$</td>
<td></td>
</tr>
</tbody>
</table>

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

### Absolute Maximum Ratings at $TA=25^\circ C$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Super Bright Green</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power dissipation</td>
<td>62.5</td>
<td>mW</td>
</tr>
<tr>
<td>DC Forward Current</td>
<td>25</td>
<td>mA</td>
</tr>
<tr>
<td>Peak Forward Current $[1]$</td>
<td>140</td>
<td>mA</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>$-40^\circ C\ To\ +85^\circ C$</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>$-40^\circ C\ To\ +85^\circ C$</td>
<td></td>
</tr>
</tbody>
</table>

#### Note:
1. $1/10$ Duty Cycle, $0.1ms$ Pulse Width.
Super Bright Green  KP-1608SGC
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.

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

```
0.8
0.8
0.8
  0.85
```

**Tape Dimensions**
(Units: mm)

```
8.0±0.3
3.5±0.05

2.0±0.05  4.0±0.1  #1.5±0.1
```

**Reel Dimension**
PACKING & LABEL SPECIFICATIONS

KP-1608SGC

Kingbright

USER DIRECTION OF FEED

LABEL

2,000 pcs / Reel

1 Reel / Bag

OUTSIDE LABEL

Kingbright

60K / 56# BOX

30K / 55# Box

P/N: KP-1608XXX

QTY: 2,000 pcs Q.C.

S/N: XXXX

CODE: XXX

LOT NO:

RoHS Compliant