3.2x1.6mm SMD CHIP LED LAMP

Part Number: APTR3216PBC/A Blue

Features
- 3.2mm x 1.6mm SMT LED, 1.05mm 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 Blue source color devices are made with InGaN on SiC Light Emitting Diode.
Static electricity and surge damage the LEDs.
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
All devices, equipment and machinery must be electrically grounded.

Package Dimensions

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") 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

<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>APTR3216PBC/A</td>
<td>Blue (InGaN)</td>
<td>WATER CLEAR</td>
<td>18</td>
<td>60 281/2</td>
</tr>
</tbody>
</table>

Notes:
1. \( \theta_{1/2} \) 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

<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>Blue</td>
<td>468</td>
<td>nm</td>
<td>( I_r=20\text{mA} )</td>
<td></td>
</tr>
<tr>
<td>( \lambda_D ) [1]</td>
<td>Dominant Wavelength</td>
<td>Blue</td>
<td>470</td>
<td>nm</td>
<td>( I_r=20\text{mA} )</td>
<td></td>
</tr>
<tr>
<td>( \Delta \lambda/2 )</td>
<td>Spectral Line Half-width</td>
<td>Blue</td>
<td>21</td>
<td>nm</td>
<td>( I_r=20\text{mA} )</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>Blue</td>
<td>100</td>
<td>pF</td>
<td>( V=0\text{V}, f=1\text{MHz} )</td>
<td></td>
</tr>
<tr>
<td>( V_F ) [2]</td>
<td>Forward Voltage</td>
<td>Blue</td>
<td>3.2</td>
<td>4</td>
<td>V ( I_r=20\text{mA} )</td>
<td></td>
</tr>
<tr>
<td>( I_R )</td>
<td>Reverse Voltage</td>
<td>Blue</td>
<td>10</td>
<td>uA</td>
<td>( V_r=5\text{V} )</td>
<td></td>
</tr>
</tbody>
</table>

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

Absolute Maximum Ratings at TA=25°C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Blue</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power dissipation</td>
<td>120</td>
<td>mW</td>
</tr>
<tr>
<td>DC Forward Current</td>
<td>30</td>
<td>mA</td>
</tr>
<tr>
<td>Peak Forward Current [1]</td>
<td>100</td>
<td>mA</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C To +85°C</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40°C To +85°C</td>
<td></td>
</tr>
</tbody>
</table>

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

Tape Dimensions
(Units : mm)
PACKING & LABEL SPECIFICATIONS

USER DIRECTION OF FEED

LABEL

2,000pcs / Reel

LABEL

1 Reel / Bag

OUTSIDE LABEL

60K / 56# BOX

30K / 55# Box

Kingbright

P/N: APTR3216xxx

QTY: 2,000 pcs

S/N: XXXX

CODE: XXX

LOT NO:

RoHS Compliant