SUPER FLUX LED LAMP

ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Description
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.

Benefits:
* Outstanding Material Efficiency.
* Electricity savings.
* Maintenance savings.
* Reliable and Rugged.

Typical Applications:
* Automotive Exterior Lighting.
* Electronic Signs and Signals.
* Specialty Lighting.

Features:
* High Luminance output.
* Design for High Current Operation.
* Uniform Color.
* Low Power Consumption.
* Low Thermal Resistance.
* Low Profile.
* Packaged in tubes for use with automatic insertion equipment.
* Soldering methods: Wave soldering.
* RoHS Compliant.

Technical Data

Part Number: WP7679C1VGC/Z
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.

Absolute Maximum Ratings at TA=25°C

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VG/Z</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Forward Current</td>
<td>50</td>
<td>mA</td>
</tr>
<tr>
<td>Power dissipation</td>
<td>210</td>
<td>mW</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 To +85</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 To +85</td>
<td>°C</td>
</tr>
<tr>
<td>Lead Solder Temperature[1]</td>
<td>260°C For 5 Seconds</td>
<td></td>
</tr>
</tbody>
</table>

1.1.5mm[0.06inch] below seating plane.
NO Reflow soldering.
## Selection Guide

<table>
<thead>
<tr>
<th>Part No.</th>
<th>LED COLOR</th>
<th>$I_v[cd][1]$ @50mA</th>
<th>$\Phi_v[ln][1]$ @50mA</th>
<th>Viewing Angle $[2]$</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP7679C1VGC/Z</td>
<td>Green (InGaN)</td>
<td>5.7</td>
<td>10</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Notes:
1. Luminous intensity is measured with an integrating sphere after the device has stabilized; Luminous Intensity / luminous flux: +/-15%.
2. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

### Optical Characteristics at TA=25°C

$I_v=50mA$  $R_{8j-a}=200°C/W$

<table>
<thead>
<tr>
<th>DEVICE TYPE</th>
<th>PEAK WAVELENGTH $\lambda_{PEAK}$ (nm)</th>
<th>DOMINANT[1] WAVELENGTH $\lambda_{DOM}$ (nm)</th>
<th>SPECTRAL LINE WAVELENGTH $\Delta\lambda_{1/2}$ (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VG/Z</td>
<td>525</td>
<td>535</td>
<td>39</td>
</tr>
</tbody>
</table>

Note:
1. The dominant wavelength is derived from the CIE Chromaticity Diagram and represents the perceived color of the device; Wavelength: +/-1nm.

### Electrical Characteristics at TA=25°C

<table>
<thead>
<tr>
<th>DEVICE TYPE</th>
<th>FORWARD VOLTAGE [$1$] $V_f$ (VOLTS) $@ I_v=50mA$</th>
<th>REVERSE CURRENT $I_r$ (uA) $@ V_f=5V$</th>
<th>CAPACITANCE $C$ (pF) $@ V_f=0V$ $F=1$MHZ</th>
<th>THERMAL RESISTANCE $R_{8j-pin}$ °C/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>VG/Z</td>
<td>3.5</td>
<td>4.2</td>
<td>10</td>
<td>65</td>
</tr>
</tbody>
</table>

Note:
1. Forward Voltage: +/-0.1V.
**Figures**

- **Relative Radiant Intensity vs. Wavelength**: 
  - Wavelength \( \lambda \) (nm) vs. Relative Intensity
  - Peak at 550 nm
  - Temperature \( T_a = 25^\circ C \)

- **Forward Current (mA) vs. Forward Voltage**: 
  - Forward Voltage (V) vs. Forward Current
  - Forward Voltage range from 2.6 to 3.6 V
  - Forward Current increases with voltage

- **Relative Intensity at \( I = 50mA \)**: 
  - Forward Current (mA) vs. Relative Intensity
  - Relative Intensity increases with current

- **Max DC Forward Current (mA) vs. Ambient Temperature**: 
  - Ambient Temperature (°C) vs. Max DC Forward Current
  - Data points for different max current levels

- **Relative Intensity vs. Off Axis Angle (Degrees)**: 
  - Off Axis Angle (Degrees) vs. Relative Intensity
  - Relative Intensity decreases with off-axis angle
PACKING & LABEL SPECIFICATIONS

WP7679C1VGC/Z

750 pcs / IC TUBE (520x8.3x15 mm)

750 pcs / 10 pcs IC TUBE

OUTSIDE LABEL

LABEL

7.5 K / 6# BOX

10 pcs IC TUBE / BAG

Kingbright

P/N: WP7679C1

QTY: 750 pcs

S/N: XXXX

CODE: XXX

LOT NO: XXXXXXXX

RoHS Compliant

Kingbright