### Features
- 2.1x1.0x0.6mm right angle SMD LED, 0.6mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

### Description
The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

### Package Dimensions

#### Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(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>Emitting Color (Material)</th>
<th>Lens Type</th>
<th>$I_v$ (mcd) [2] @ 20mA</th>
<th>Viewing Angle [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA2106CGCK</td>
<td>Green (AlGaInP)</td>
<td>Water Clear</td>
<td>Min. 20 Typ. 50</td>
<td>140°</td>
</tr>
</tbody>
</table>

Notes:
1. 8/1/2 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 CIE127-2007 standards.

### Electrical / Optical Characteristics at $T_A=25°C$

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Emitting Color</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>Green</td>
<td>574</td>
<td>nm</td>
<td>I$_f$=20mA</td>
<td></td>
</tr>
<tr>
<td>$\lambda_D$ [1]</td>
<td>Dominant Wavelength</td>
<td>Green</td>
<td>570</td>
<td>nm</td>
<td>I$_f$=20mA</td>
<td></td>
</tr>
<tr>
<td>$\Delta \lambda/2$</td>
<td>Spectral Line Half-width</td>
<td>Green</td>
<td>20</td>
<td>nm</td>
<td>I$_f$=20mA</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>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>Green</td>
<td>2.1</td>
<td>2.5</td>
<td>V</td>
<td>I$_f$=20mA</td>
</tr>
<tr>
<td>$I_R$</td>
<td>Reverse Current</td>
<td>Green</td>
<td>10</td>
<td>$\mu$A</td>
<td>$V_r=5V$</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### Absolute Maximum Ratings at $T_A=25°C$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power dissipation</td>
<td>75</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>150</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>

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.
Green

APA2106CGCK

Relative Radiant Intensity vs. Wavelength

Forward Current (mA) vs. Forward Voltage

Luminous Intensity (mA) vs. Forward Voltage

Forward Current (mA) vs. Ambient Temperature (°C)

Luminous Intensity (mA) vs. Ambient Temperature (°C)

Spatial Distribution
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)

**Reel Dimension**

**Tape Dimensions**  
(Units : mm)
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