1 W High Power LED

TSLG-XF7060-A07

1 W High Power Super Yellow LED

Features

- Feature of the device: small package with high efficiency
- View angle: 120°
- High light flux output: more than 28lm@350mA
- ESD protection
- Soldering methods: SMT
- Grouping parameter: total luminous flux, dominant wavelength
- Optical efficiency: 36 lm/W
- Thermal resistance (junction to lead): 17K /W
- RoHS Compliance

Applications

- Interior and exterior automotive illumination
- TFT LCD display backlight
- Signal and symbol luminaries for orientation marker lights (e.g. steps, exit ways, etc.)
- Decorative and entertainment illumination

Materials

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Heat resistant polymer</td>
</tr>
<tr>
<td>Encapsulating Resin</td>
<td>Colorless clear resin</td>
</tr>
<tr>
<td>Electrodes</td>
<td>Ag plating copper alloy</td>
</tr>
<tr>
<td>Die attach</td>
<td>Silver paste</td>
</tr>
<tr>
<td>Chip</td>
<td>AlInGaP</td>
</tr>
</tbody>
</table>
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Absolute Maximum Ratings (Ta=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Operating Current</td>
<td>IF</td>
<td>350</td>
<td>mA</td>
</tr>
<tr>
<td>Pulsed Forward Current</td>
<td>IPF</td>
<td>500</td>
<td>mA</td>
</tr>
<tr>
<td>Power Dissipation</td>
<td>Pd</td>
<td>1.5</td>
<td>W</td>
</tr>
<tr>
<td>Junction Temperature</td>
<td>Tj</td>
<td>125</td>
<td>°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>Topr</td>
<td>-40 ~ +100</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>Tstg</td>
<td>-40 ~ +100</td>
<td>°C</td>
</tr>
<tr>
<td>Junction to heat-sink thermal resistance</td>
<td>Rth</td>
<td>17</td>
<td>K/W</td>
</tr>
</tbody>
</table>

Electro-Optical Characteristics (Ta=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Bin</th>
<th>Symbol</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
<th>Condition</th>
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</thead>
<tbody>
<tr>
<td>Luminous Flux</td>
<td>J1</td>
<td>Φv</td>
<td>23</td>
<td>-----</td>
<td>27</td>
<td>Im</td>
<td>IF =350mA</td>
</tr>
<tr>
<td></td>
<td>J2</td>
<td></td>
<td>27</td>
<td>-----</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J3</td>
<td></td>
<td>33</td>
<td>-----</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forward Voltage</td>
<td>U2</td>
<td>VF</td>
<td>2.05</td>
<td>-----</td>
<td>2.35</td>
<td>V</td>
<td>IF =350mA</td>
</tr>
<tr>
<td></td>
<td>U3</td>
<td></td>
<td>2.35</td>
<td>-----</td>
<td>2.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>U4</td>
<td></td>
<td>2.65</td>
<td>-----</td>
<td>2.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wavelength</td>
<td>AA</td>
<td>λd</td>
<td>580</td>
<td>-----</td>
<td>585</td>
<td>nm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AB</td>
<td></td>
<td>585</td>
<td>-----</td>
<td>590</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC</td>
<td></td>
<td>590</td>
<td>-----</td>
<td>595</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viewing Angle</td>
<td></td>
<td>2θ1/2</td>
<td>-----</td>
<td>120</td>
<td>-----</td>
<td>deg</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Wavelength measurement tolerance: ±1.0 nm
2. Luminous flux measurement tolerance: ±10%
3. Forward Voltage measurement tolerance: ±0.1V
4. 2θ1/2 is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
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Typical Electro-Optical Characteristics Curves (Ta=25°C)

Spectral Distribution

Forward Voltage vs. Forward Current

Relative Luminous Intensity vs. Forward Current

Ambient Temperature & Operating Current on Derating Tj_MAX=125 °C

Typical Representative Spatial Radiation Pattern

Relative Intensity

Angle (Degree)
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Package Outline Dimensions (Unit=mm)

Note: The tolerances unless mentioned is ±0.25mm, Unit = mm
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Carrier Tape Dimensions (Unit:mm): Loaded quantity 800pcs per reel

Note: The tolerances unless mentioned is ±0.1mm.

Moisture Resistant Packaging

[Diagram showing moisture resistant packaging process: Label → Aluminum moisture-proof bag → Desiccant → Label]
Reel Dimensions (Unit=mm)

Note: The tolerances unless mentioned is ±0.1mm.
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Ordering Information

TS L G X F 7060 – A07 - 92-TR30

Lead Free Tape & Reel
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3=13” reel 0=800pcs per reel
Factory Location Code
Frame Structure Code
Size Code in mm
Flat Top
Super Yellow Color
G-bend Type
Lead Frame Type
Taitron SMD LED

Label Explanation

CAT: Luminous Flux Rank
HUE: Dominant Wavelength Rank
REF: Forward Voltage Rank
How to contact us

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