15mmx15mm LIGHT BAR

Part Number: DE/4SGD   Super Bright Green

**Features**
- UNIFORM LIGHT EMITTING AREA.
- EASILY MOUNTED ON P.C. BOARDS OR INDUSTRY STANDARD SOCKETS.
- FLUSH MOUNTABLE.
- EXCELLENT ON/OFF CONTRAST.
- CAN BE USED WITH PANELS AND LEGEND MOUNTS.
- MECHANICALLY RUGGED.
- I.C. COMPATIBLE.
- RoHS COMPLIANT.

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

**Package Dimensions & Internal Circuit Diagram**

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Notes:
1. All dimensions are in millimeters (inches). Tolerance is ±0.25(0.01") unless otherwise noted.
2. Specifications are subject to change without notice.
Selection Guide

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Dice</th>
<th>Lens Type</th>
<th>Iv (mcd) [1] @ 20mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE/4SGD</td>
<td>Super Bright Green (GaP)</td>
<td>GREEN DIFFUSED</td>
<td>18</td>
</tr>
</tbody>
</table>

Note:
1. 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>
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</thead>
<tbody>
<tr>
<td>λpeak</td>
<td>Peak Wavelength</td>
<td>Super Bright Green</td>
<td>565</td>
<td>nm</td>
<td>IF=20mA</td>
<td></td>
</tr>
<tr>
<td>λD [1]</td>
<td>Dominant Wavelength</td>
<td>Super Bright Green</td>
<td>568</td>
<td>nm</td>
<td>IF=20mA</td>
<td></td>
</tr>
<tr>
<td>Δλ1/2</td>
<td>Spectral Line Half-width</td>
<td>Super Bright Green</td>
<td>30</td>
<td>nm</td>
<td>IF=20mA</td>
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</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>Super Bright Green</td>
<td>15</td>
<td>pF</td>
<td>VF=0V; f=1MHz</td>
<td></td>
</tr>
<tr>
<td>VF [2]</td>
<td>Forward Voltage</td>
<td>Super Bright Green</td>
<td>2.2</td>
<td>2.5</td>
<td>V</td>
<td>IF=20mA</td>
</tr>
<tr>
<td>Ir</td>
<td>Reverse Current</td>
<td>Super Bright Green</td>
<td>10</td>
<td>uA</td>
<td>VF=5V</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>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 / Storage Temperature [2]</td>
<td>-40°C to +85°C</td>
<td></td>
</tr>
<tr>
<td>Lead Solder Temperature [2]</td>
<td>260°C for 3-5 Seconds</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
Super Bright Green DE/4SGD

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

- **Forward Current vs. Forward Voltage**
  - Voltage $V$ (V)
  - Current $I$ (mA)

- **Luminous Intensity vs. Forward Current**
  - Current $I$ (mA)
  - Intensity $I_e$ (cd)

- **Forward Current vs. Ambient Temperature**
  - Temperature $T_a$ ($^\circ C$)
  - Current $I$ (mA)

- **Luminous Intensity vs. Ambient Temperature**
  - Temperature $T_a$ ($^\circ C$)
  - Intensity $I_e$ (cd)