**Features**
- 0.56 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 400pcs/ reel.
- Moisture sensitivity level: level 2a.
- RoHS compliant.

**Descriptions**
- The source color devices are made with InGaN on SiC Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

**Package Dimensions & Internal Circuit Diagram**

Notes:
1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01") unless otherwise noted.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.
### Selection Guide

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Emitting Color (Material)</th>
<th>Lens Type</th>
<th>Iv (ucd) [1] @ 10mA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACSA56-51RWWA/A</td>
<td>White (InGaN)</td>
<td>White Diffused</td>
<td>5600 15000</td>
<td>Common Anode</td>
</tr>
</tbody>
</table>

**Notes:**
1. Luminous intensity/ luminous Flux: +/-15%.
2. Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

### Electrical / Optical Characteristics at TA=25°C

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Emitting Color</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Units</th>
<th>Test Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF [1]</td>
<td>Forward Voltage</td>
<td>White</td>
<td>3.05</td>
<td>4.0</td>
<td>V</td>
<td></td>
<td>Ir=10mA</td>
</tr>
<tr>
<td>Ir</td>
<td>Reverse Current</td>
<td>White</td>
<td>10</td>
<td>uA</td>
<td>V</td>
<td></td>
<td>Vr = 5V</td>
</tr>
<tr>
<td>CCT</td>
<td>Color Temperature</td>
<td>White</td>
<td>4600</td>
<td>15000</td>
<td>K</td>
<td></td>
<td>Ir=10mA</td>
</tr>
<tr>
<td>x [2]</td>
<td>Chromaticity Coordinates</td>
<td>White</td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y [2]</td>
<td></td>
<td></td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>White</td>
<td>100</td>
<td>pF</td>
<td></td>
<td></td>
<td>Vr=0V,f=1MHz</td>
</tr>
</tbody>
</table>

**Notes:**
1. Forward Voltage: +/-0.1V.
2. Measurement tolerance of the chromaticity coordinates is ±0.01.
3. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### Absolute Maximum Ratings at TA=25°C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</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>Electrostatic Discharge Threshold (HBM)</td>
<td>1000</td>
<td>V</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Operating / 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.
CIRCUIT DESIGN NOTES

1. Protective current-limiting resistors may be necessary to operate the Displays.

2. LEDs mounted in parallel should each be placed in series with its own current-limiting resistor.
Notes:
Shipment may contain more than one chromaticity regions.
Orders for single chromaticity region are generally not accepted.
Measurement tolerance of the chromaticity coordinates is ±0.01.
Recommended Soldering Pattern
(Units: mm; Tolerance: ±0.15)

Tape Specifications
(Units: mm)
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