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.

Description
The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

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>Dice</th>
<th>Lens Type</th>
<th>$I_v$ (ucd) [1] $\times 10^3$ @ 10mA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACSA65-51SYKWA</td>
<td>Super Bright Yellow (AlGaInP)</td>
<td>White Diffused</td>
<td>52000</td>
<td>117000</td>
</tr>
</tbody>
</table>

Note:
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>Device</th>
<th>Typ.</th>
<th>Max.</th>
<th>Units</th>
<th>Test Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\lambda_{peak}$</td>
<td>Peak Wavelength</td>
<td>Super Bright Yellow</td>
<td>590</td>
<td>nm</td>
<td>$I_r=20mA$</td>
<td></td>
</tr>
<tr>
<td>$\lambda_D$ [1]</td>
<td>Dominant Wavelength</td>
<td>Super Bright Yellow</td>
<td>590</td>
<td>nm</td>
<td>$I_r=20mA$</td>
<td></td>
</tr>
<tr>
<td>$\Delta\lambda_{1/2}$</td>
<td>Spectral Line Half-width</td>
<td>Super Bright Yellow</td>
<td>20</td>
<td>nm</td>
<td>$I_r=20mA$</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Capacitance</td>
<td>Super Bright Yellow</td>
<td>20</td>
<td>pF</td>
<td>$V_r=0V; f=1MHz$</td>
<td></td>
</tr>
<tr>
<td>$V_f$ [2]</td>
<td>Forward Voltage</td>
<td>Super Bright Yellow</td>
<td>2.0</td>
<td>2.5</td>
<td>$V_r=20mA$</td>
<td></td>
</tr>
<tr>
<td>$I_r$</td>
<td>Reverse Current</td>
<td>Super Bright Yellow</td>
<td>10</td>
<td>uA</td>
<td>$V_r=5V$</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
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>Super Bright Yellow</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>175</td>
<td>mA</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.
Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.15)

Reel Dimension

Tape Specifications  
(Units : mm)
**PACKING & LABEL SPECIFICATIONS**

**ACSA56-51SYKWA**

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