Specifications for Approval

※ 方舟 P/N (ARKLED P/N):  **SZ041257/SZ031257**
※ 客户 P/N (CUSTOMER P/N):  ____________
※ 产品说明 (DESCRIPTION):
   1. 1.2 inch (39.1mm) Dot Height
   2. 5x7 LED Dot Matrix Display
   3. Ultra Brightness Red-green
※ 日期 (DATE):  **2012-5-23**

地址: 江苏省宜兴市张渚镇金张渚工业区纬二路 2 号
FACTORY ADD: NO.2 Wei er Road, ZHANGZHU TOWN, YIXING CITY, JIANGSU PROVINCE, P.R.CHINA
Ningbo Branch:
电话 (TEL): 0086-574-86308393  传真 (FAX): 0086-574-86308392
E-mail: ark@arkled.net  网址 (http): www.arkled.net
FEATURES
- High intensity and reliability
- High quality, Low power requirement and low cost
- IC compatible, Easy assembly
- Meet RoHS EU Directive

DESCRIPTION
- The device of this 1.2 inch 5x7 dot matrix LED display is made of 4 elements (AlGaInP) material, designed for viewing distance up to 15 meters.
- It can be used in audio equipment, instruments, numeric read out display and so on.
- Standard appearance color is black or grey face and white dot.

Selection Guide

<table>
<thead>
<tr>
<th>Part No. CC(^1)</th>
<th>Part No. CA(^2)</th>
<th>Dice</th>
<th>Iv(mcd)(^3)@20mA</th>
<th>Min.</th>
<th>Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SZ041257</td>
<td>SZ031257</td>
<td>Ultra Bright Red (AlGaInP)</td>
<td>17</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ultra Bright Green (AlGaInP)</td>
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<td></td>
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</tr>
</tbody>
</table>

Note:
1. CC is Common Cathode.
2. CA is Common Anode.
3. Luminous intensity/ luminous Flux: +/-15%.
## ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>SYMBOL</th>
<th>ULTRA-BRIGHT RED</th>
<th>ULTRA-BRIGHT Green</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Dissipation Per Dot</td>
<td>PAD</td>
<td>100</td>
<td>100</td>
<td>mw</td>
</tr>
<tr>
<td>Reverse Voltage Per Dot</td>
<td>VR</td>
<td>5</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Continuous Forward Current Per Dot</td>
<td>IAF</td>
<td>30</td>
<td></td>
<td>mA</td>
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<tr>
<td>Peak Forward Current Per Dot (Duty-0.1, 1KHz)</td>
<td>IPF</td>
<td>200</td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>TOPr</td>
<td>-20°C to 80°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>Tstg</td>
<td>-30°C to 85°C</td>
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</tbody>
</table>

Lead Soldering Temperature 260°C at 1.6mm From Body for 3 second

## ELECTRICAL/OPTICAL CHARACTERISTICS AT Ta=25°C

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>SYMBOL</th>
<th>TEST CONDITION</th>
<th>Color</th>
<th>TYP.</th>
<th>MAX.</th>
<th>UNIT</th>
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</thead>
<tbody>
<tr>
<td>Forward Voltage</td>
<td>VF</td>
<td>IF=20mA</td>
<td>ULTRA-BRIGHT RED</td>
<td>1.9</td>
<td>2.6</td>
<td>V</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>ULTRA-BRIGHT Green</td>
<td>2.1</td>
<td>2.6</td>
<td></td>
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<tr>
<td>Reverse Current</td>
<td>IR</td>
<td>VR=5V</td>
<td>ULTRA-BRIGHT RED</td>
<td>50</td>
<td></td>
<td>µA</td>
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<td></td>
<td></td>
<td>ULTRA-BRIGHT Green</td>
<td>50</td>
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<tr>
<td>Peak Emission Wavelength</td>
<td>λp</td>
<td>IF=20mA</td>
<td>ULTRA-BRIGHT RED</td>
<td>640</td>
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<td>nm</td>
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<td></td>
<td>ULTRA-BRIGHT Green</td>
<td>565</td>
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</table>
Package Dimensions and Internal Circuit Diagram

NOTES:
1. all dimensions are in millimeters. (Inches)
2. Tolerance is ± 0.25(0.010") unless otherwise specified.
Typical Electrical-Optical Characteristics Curves: Ultra Bright Red

- Forward Current Vs Forward Voltage
- Relative Intensity Vs Forward Current
- Forward Current Vs Environmental Temp
- Relative Intensity Vs Environmental Temp
- Relative Intensity Vs Wavelength
Typical Electrical-Optical Characteristics Curves: Ultra Bright Green

1. Forward Current vs Forward Voltage
2. Relative Intensity vs Forward Current
3. Forward Current vs Environmental Temp
4. Relative Intensity vs Environmental Temp
5. Relative Intensity vs Wavelength

Part No: SZ041257, SZ031257

1.2 Inch Dot Matrix Display

RoHS