3ADL-X

- Industry Standard 3mm (T1) Package
- RoHS Compliant
- Diffused Lens
- Available in Flange (F) and Shouldered (S) Lead Frame styles
- 2 mA Low Operating Current
- Ideal for Status Indication and Display

Bivar 3mm T1 Package 2 mA Low Current LED is special binned at 2 mA and is ideal for those applications where lower power budget is required such as solar panel or battery-powered portable devices. Bivar offers diffused LED lens for uniform light output. The Flanged LED is ideal for Panel Mount Clip & Ring assemblies. The Shouldered Lead frame LED is ideal for vertical spacer assemblies without lead bends and also has a built in strain relief feature which is ideal for right angle holder assemblies that require lead bends.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Material</th>
<th>Emitted Color</th>
<th>Peak. Wavelength λp(nm) TYP.</th>
<th>Lens Appearance</th>
<th>Viewing Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>3ADL-F</td>
<td>GaAsP/GaP</td>
<td>AMBER</td>
<td>605nm</td>
<td>Amber Diffused</td>
<td>35°</td>
</tr>
<tr>
<td>3ADL-S</td>
<td></td>
<td></td>
<td></td>
<td>Amber Diffused</td>
<td>40°</td>
</tr>
</tbody>
</table>

Part Number Designation

- LED Body, mm
- Emitted Color
- Lens Appearance
- Lead Frame & Body Style i.e. -F, -S
- Low Current
Outline Dimensions

Outline Drawings Notes:
1. All dimensions are in inches [millimeters].
2. Standard tolerance: ±0.010" unless otherwise noted.
3. Tolerance of overall epoxy outline: ±0.020" unless otherwise noted.
4. Epoxy meniscus may extend to 0.060" max.

Bivar reserves the right to make changes at any time without notice.
Absolute Maximum Ratings

$T_A = 25^\circ C$ unless otherwise noted

<table>
<thead>
<tr>
<th></th>
<th>Power Dissipation</th>
<th>Forward Current (DC)</th>
<th>Peak Forward Current $^1$</th>
<th>Reverse Voltage</th>
<th>Operating Temperature Range</th>
<th>Storage Temperature Range</th>
<th>Lead Soldering Temperature (3 mm from the base of the epoxy bulb) $^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 mW</td>
<td>7 mA</td>
<td>/ mA</td>
<td>5 V</td>
<td>-25 ~ +85°C</td>
<td>-30 ~ +100°C</td>
<td>260°C</td>
</tr>
</tbody>
</table>

Notes: 1. 10% Duty Cycle, Pulse Width $\leq 0.1$ msec.  
2. Solder time less than 5 seconds at temperature extreme.

Electrical / Optical Characteristics

$T_A = 25^\circ C$ & $I_F = 2$ mA unless otherwise noted

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Forward Voltage (V)$^1$</th>
<th>Recommend Forward Current (mA)</th>
<th>Reverse Current ($\mu$A)</th>
<th>Dominant Wavelength (nm)$^2$</th>
<th>Luminous Intensity $I_v$ (mcd)</th>
<th>Viewing Angle $2 \Theta$ $^2 \frac{1}{2}$ (deg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MIN TYP MAX</td>
<td>MIN TYP MAX</td>
<td>MAX</td>
<td>MIN TYP MAX</td>
<td>MIN TYP MAX</td>
<td>MIN TYP MAX</td>
</tr>
<tr>
<td>3ADL-F</td>
<td>/ 2.0 2.6</td>
<td>/ 2 /</td>
<td>100</td>
<td>/ / /</td>
<td>/ 4 /</td>
<td>35</td>
</tr>
</tbody>
</table>

Notes: 1. Tolerance of forward voltage : $\pm 0.05$V.  
2. Tolerance of dominant wavelength : $\pm 1.0$nm.
3mm (T1) Package Discrete LEDs

AMBER, Super Bright

GREEN, Ultra Bright

BLUE, Ultra Bright

TURQUOISE, Ultra Bright

BLUE, Low Current

GREEN, Low Current

YELLOW, Low Current

AMBER, Low Current

Typical Electrical / Optical Characteristics

$T_A = 25^\circ C$ unless otherwise noted

Fig. 1 Relative Luminous Intensity vs. Wavelength

Fig. 2 Directivity Radiation Diagram

Fig. 3 Forward Voltage vs. Temperature

Fig. 4 Relative Luminous Intensity vs. Temperature
Recommended Soldering Conditions

Preheat Temperature: 100°C Max.  
Peak Temperature: 260°C Max.  
Preheat Time: 20 ~ 50 Seconds  
Solder Time Above 217°C: 5 Seconds Max.

Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.

Packaging and Labeling Plan

Anti-Static Poly Bag with Desiccant  
(500 pcs Max. per Bag)