DOUBLE HETEROJUNCTION AlGaAs
LOW CURRENT RED LED LAMPS

T-1 3/4 (5mm)
HLMP-D150A Red Diffused
HLMP-D155A Red Clear with Standoff
T-100 (3mm)
HLMP-K150 Red Diffused
HLMP-K155 Red Clear

PACKAGE DIMENSIONS

FEATRES
• Wide Viewing Angle
• Deep Red Color

DESCRIPTION
Exceptional light output typifies these devices and
provides for their use over a
broad range of drive currents.
The LED material is based on double
heterojunction (DH) AlGaAs/GaAs
technology.

NOTES:
1. ALL DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCE ARE ±0.010’ UNLESS OTHERWISE SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT .040” (1 mm)
   DOWN THE LEADS.
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<table>
<thead>
<tr>
<th>Parameter</th>
<th>RED</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Dissipation</td>
<td>87</td>
<td>mW</td>
</tr>
<tr>
<td>Peak Forward Current (f=1kHz, DF=10%)</td>
<td>300</td>
<td>mA</td>
</tr>
<tr>
<td>Continuous DC Forward Current</td>
<td>30</td>
<td>mA</td>
</tr>
<tr>
<td>Lead Soldering Time at 260° C</td>
<td>5</td>
<td>sec</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-20 to +100</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55 to +100</td>
<td>°C</td>
</tr>
</tbody>
</table>

**ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HLMP-K150</th>
<th>HLMP-K155</th>
<th>HLMP-D150A</th>
<th>HLMP-D155A</th>
<th>Condition</th>
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</thead>
<tbody>
<tr>
<td>Luminous Intensity (mcd)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I_F = 1mA</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.2</td>
<td>2.0</td>
<td>1.2</td>
<td>3.0</td>
<td></td>
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<tr>
<td>Typical</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>10.0</td>
<td></td>
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<tr>
<td>Forward Voltage (V)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I_F = 1mA</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Typical</td>
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<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
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</tr>
<tr>
<td>Peak Wavelength (nm)</td>
<td>660</td>
<td>660</td>
<td>660</td>
<td>660</td>
<td>I_F = 1mA</td>
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<tr>
<td>Spectral Line Half Width</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>I_F = 1mA</td>
</tr>
<tr>
<td>Reverse Voltage (V)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>I_R = 100μA</td>
</tr>
<tr>
<td>Viewing Angle (°)</td>
<td>60</td>
<td>45</td>
<td>65</td>
<td>24</td>
<td>I_F = 1mA</td>
</tr>
</tbody>
</table>
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TYPICAL PERFORMANCE CURVES (T_A = 25°C)

Fig. 1 Forward Current vs. Forward Voltage

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

Fig. 3 Relative Intensity vs. Peak Wavelength

Fig. 4 Current Derating Curve
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TYPICAL PERFORMANCE CURVES  ($T_a = 25^\circ C$)

Fig. 5A  Radiation Diagram (HLMP-D150A)

Fig. 5B  Radiation Diagram (HLMP-K150)

Fig. 5C  Radiation Diagram (HLMP-D155A)

Fig. 5D  Radiation Diagram (HLMP-K155)
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2. A critical component in any component of a life support device or system whose failure to perform can be implant reasonably expected to cause the failure of the life and (c) device or system, or to affect its safety or effectiveness.