



# DOUBLE HETEROJUNCTION AlGaAs LOW CURRENT RED LED LAMPS

T-1 3/4 (5mm)

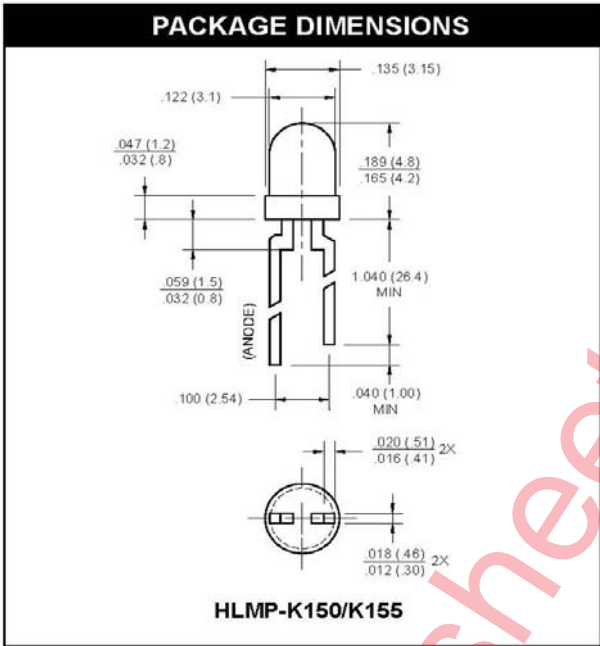
HLMP-D150A  
HLMP-D155A

Red Diffused  
Red Clear with Standoff

T-100 (3mm)

HLMP-K150  
HLMP-K155

Red Diffused  
Red Clear



### FEATURES

- Wide Viewing Angle
- Deep Red Color

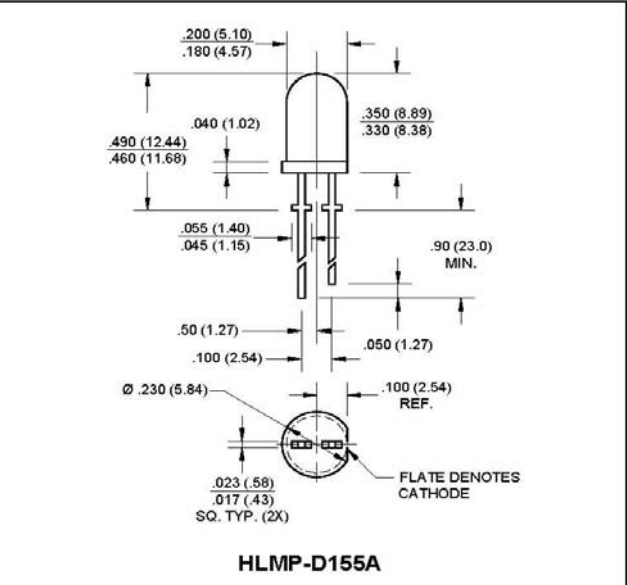
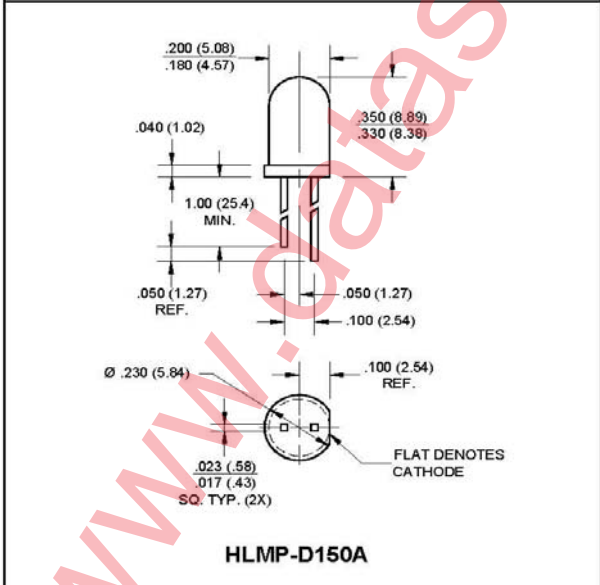
### DESCRIPTION

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  $\pm 0.10$ " UNLESS OTHERWISE SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT .040" (1 mm) DOWN THE LEADS.





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ABSOLUTE MAXIMUM RATING (T <sub>A</sub> =25°C)		
Parameter	RED	UNITS
Power Dissipation	87	mW
Peak Forward Current (f=1kHz, DF=10%)	300	mA
Continuous DC Forward Current	30	mA
Lead Soldering Time at 260° C	5	sec
Operating Temperature	-20 to +100	°C
Storage Temperature	-55 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T <sub>A</sub> =25°C)					
Parameter	HLMP-K150	HLMP-K155	HLMP-D150A	HLMP-D155A	Condition
Luminous Intensity (mcd)					I <sub>F</sub> = 1mA
Minimum	1.2	2.0	1.2	3.0	
Typical	2.0	3.0	3.0	10.0	
Forward Voltage (V)					I <sub>F</sub> = 1mA
Maximum	1.8	1.8	1.8	1.8	
Typical	1.6	1.6	1.6	1.6	
Peak Wavelength (nm)	660	660	660	660	I <sub>F</sub> = 1mA
Spectral Line Half Width	20	20	20	20	I <sub>F</sub> = 1mA
Reverse Voltage (V)	5	5	5	5	I <sub>R</sub> = 100μA
Viewing Angle (°)	60	45	65	24	I <sub>F</sub> = 1mA



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## TYPICAL PERFORMANCE CURVES ( $T_A = 25^\circ\text{C}$ )

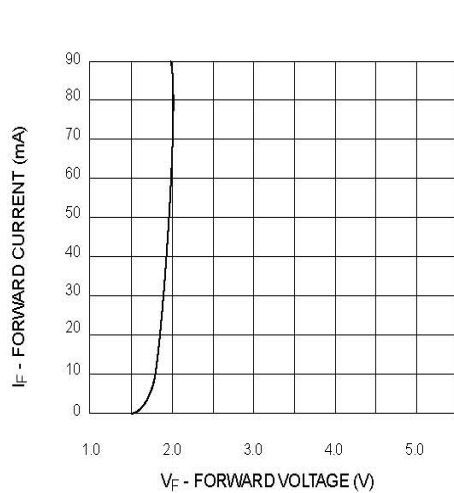


Fig. 1 Forward Current vs. Forward Voltage

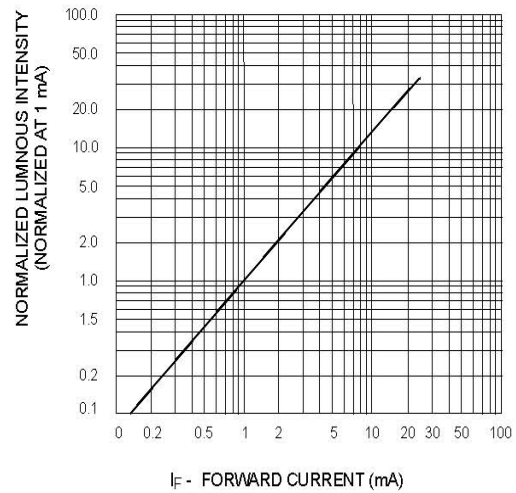


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

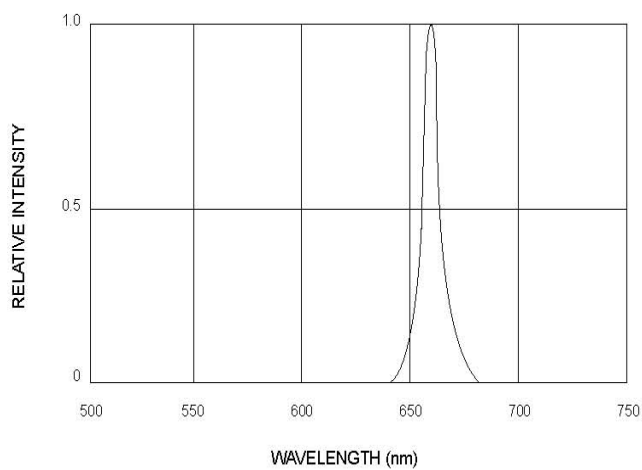


Fig. 3 Relative Intensity vs. Peak Wavelength

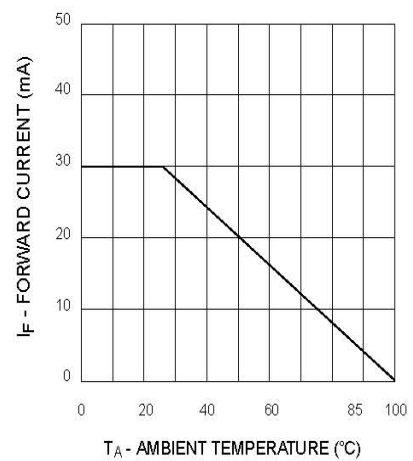
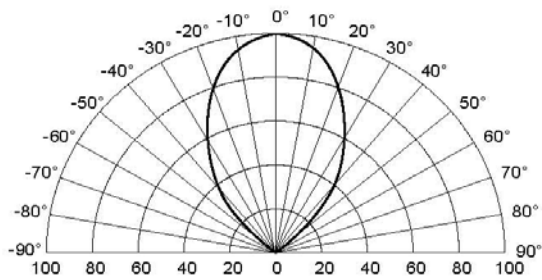


Fig. 4 Current Derating Curve



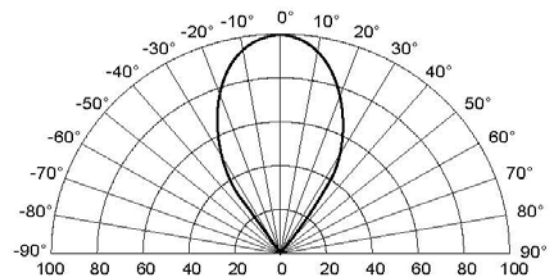
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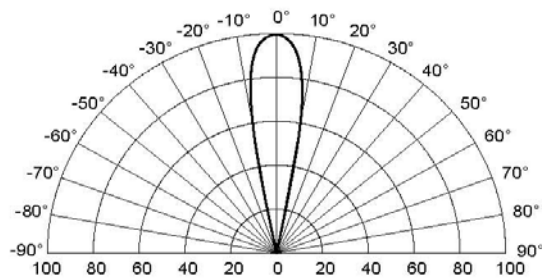
REL. LUMINOUS INTENSITY (%)

**Fig. 5A Radiation Diagram (HLMP-D150A)**



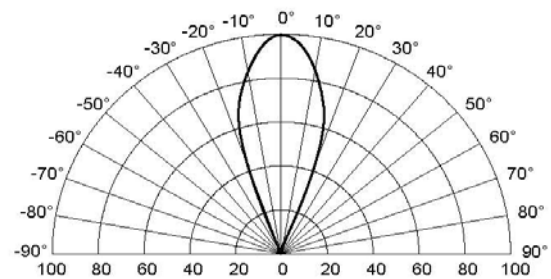
REL. LUMINOUS INTENSITY (%)

**Fig. 5B Radiation Diagram (HLMP-K150)**



REL. LUMINOUS INTENSITY (%)

**Fig. 5C Radiation Diagram (HLMP-D155A)**



REL. LUMINOUS INTENSITY (%)

**Fig. 5D Radiation Diagram (HLMP-K155)**



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