

DOUBLE HETEROJUNCTION AlGaAs HIGH INTENSITY RED LED LAMPS

T-1 3/4 (5mm)

HLMP-D101A

Red Diffused

HLMP-D105A

Red Clear with Standoff

T-100 (3mm)

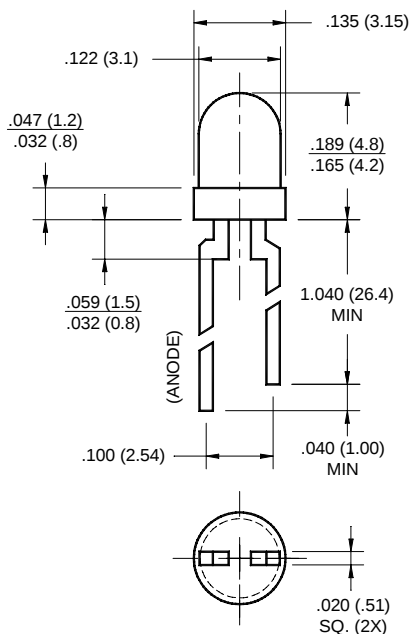
HLMP-K101

Red Diffused

HLMP-K105

Red Clear

PACKAGE DIMENSIONS



HLMP-K101/K105

FEATURES

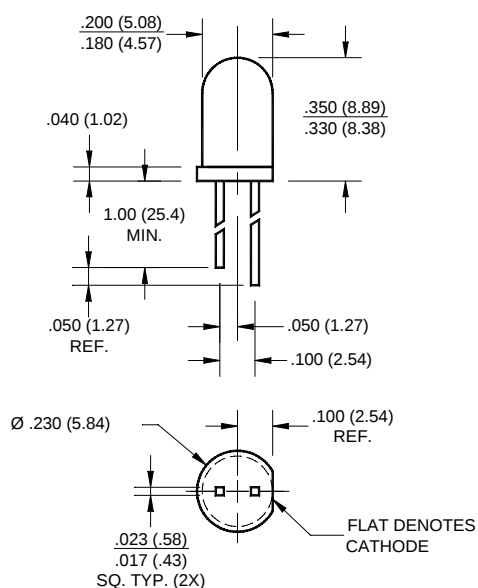
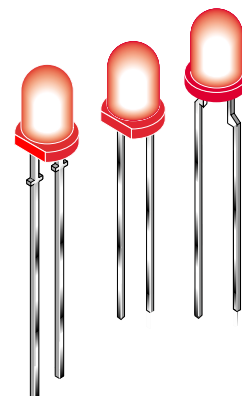
- Wide Viewing Angle
- Deep Red Color

DESCRIPTION

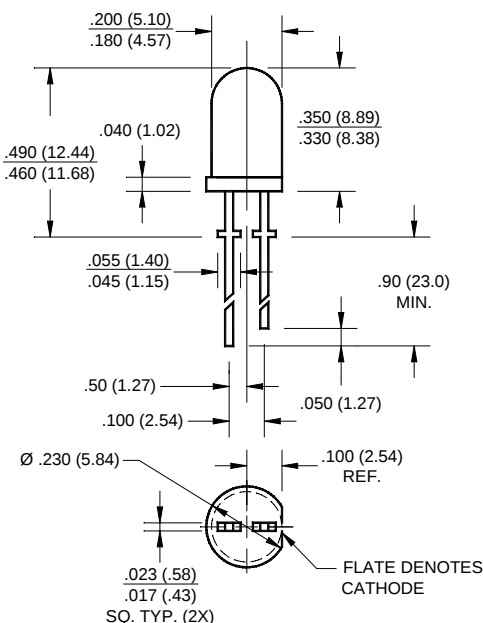
Exceptional light output typifies these devices and provides for their use over a broad range of drive currents. The LED material is based on double heterojunction (DH) AlGaAs/GaAs technology.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCE ARE $\pm .010$ " UNLESS OTHERWISE SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT .040" (1 mm) DOWN THE LEADS.



HLMP-D101A



HLMP-D105A

ABSOLUTE MAXIMUM RATING ($T_A = 25^\circ\text{C}$)

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 ($T_A = 25^\circ\text{C}$)

Parameter	HLMP-K101	HLMP-K105	HLMP-D101A	HLMP-D105A	Condition
Luminous Intensity (mcd)					$I_F = 20\text{mA}$
Minimum	22	35	35	100	
Typical	45	65	70	240	
Forward Voltage (V)					$I_F = 20\text{mA}$
Maximum	2.2	2.2	2.2	2.2	
Typical	1.8	1.8	1.8	1.8	
Peak Wavelength (nm)	660	660	660	660	$I_F = 20\text{mA}$
Spectral Line Half Width	20	20	20	20	$I_F = 20\text{mA}$
Reverse Voltage (V)	5	5	5	5	$I_R = 100\mu\text{A}$
Viewing Angle (°)	60	45	65	24	$I_F = 20\text{mA}$

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

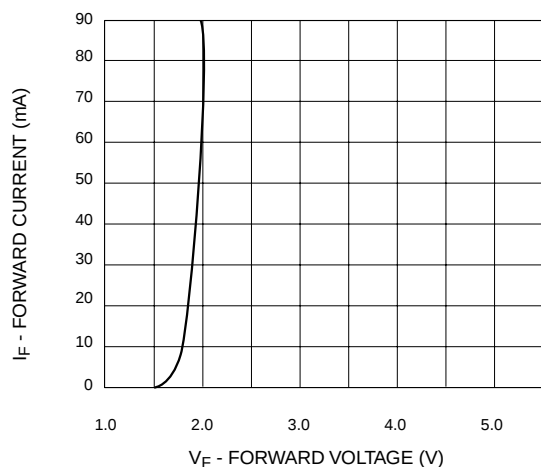


Fig. 1 Forward Current vs. Forward Voltage

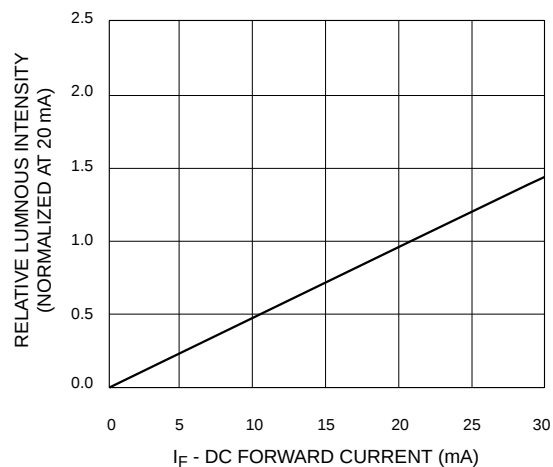


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

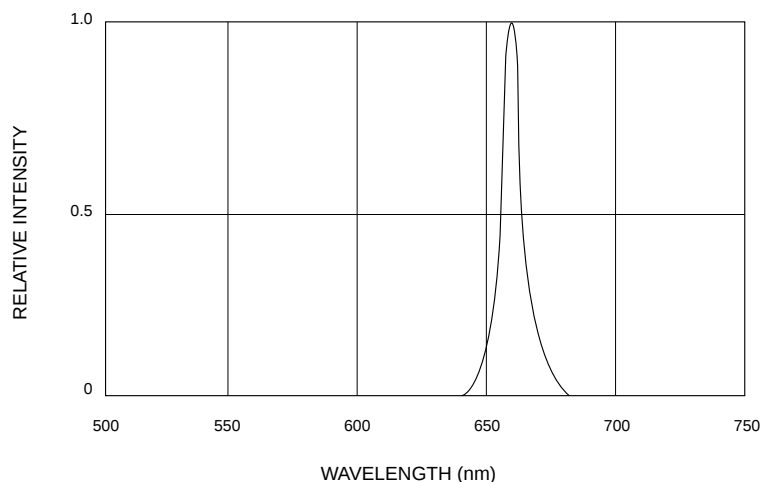


Fig. 3 Relative Intensity vs. Peak Wavelength

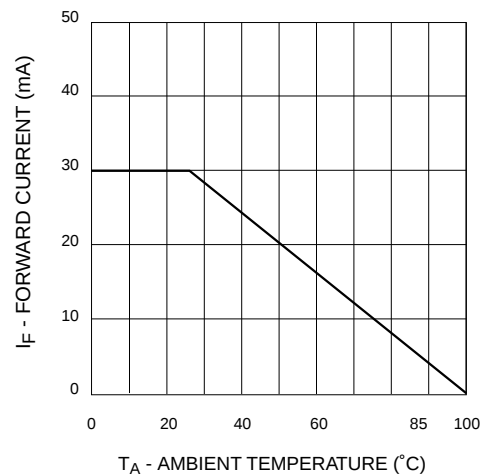
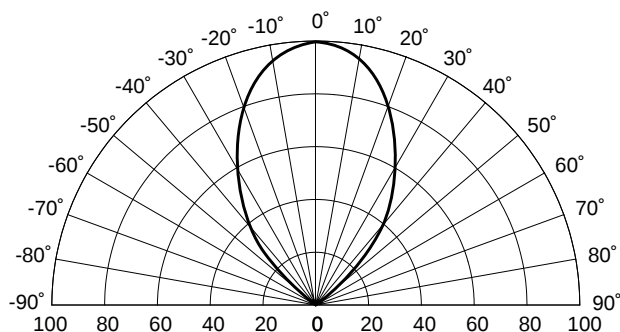


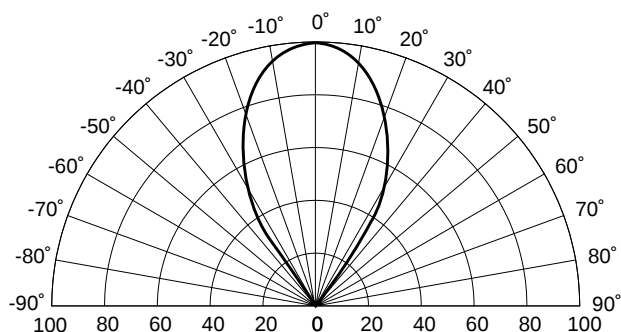
Fig. 4 Current Derating Curve

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



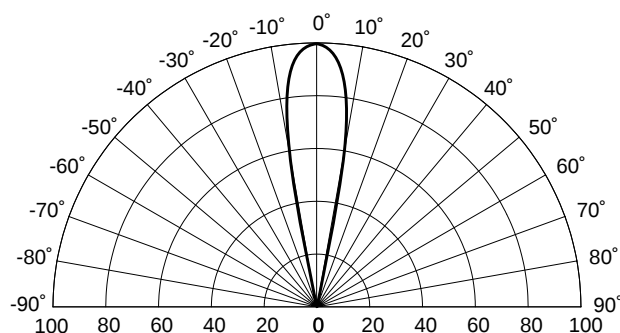
REL. LUMINOUS INTENSITY (%)

Fig. 5A Radiation Diagram (HLMP-D101A)



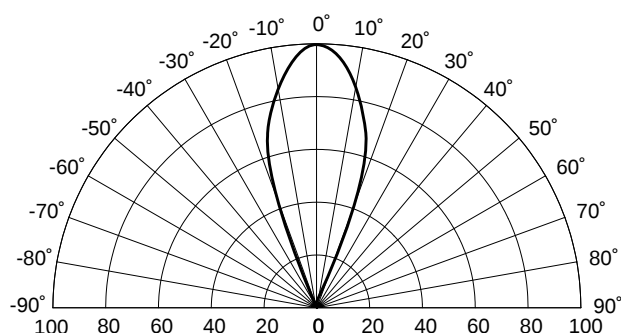
REL. LUMINOUS INTENSITY (%)

Fig. 5B Radiation Diagram (HLMP-K101)



REL. LUMINOUS INTENSITY (%)

Fig. 5C Radiation Diagram (HLMP-D105A)



REL. LUMINOUS INTENSITY (%)

Fig. 5D Radiation Diagram (HLMP-K105)

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