



# DOUBLE HETEROJUNCTION AlGaAs HIGH INTENSITY RED LED LAMPS

Viewing Angle (°)	00	42	02	54	$I_F = 50mA$
Reverse Voltage (V)	2	2	2	2	$I_F = 100\mu A$
Spectral Line Half Width	50	50	50	50	$I_F = 50mA$
Peak Wavelength (nm)	660	660	660	660	$I_F = 50mA$
Typical	8.1	8.1	8.1	8.1	$I_F = 50mA$
Maximum	5.5	5.5	5.5	5.5	
Forward Voltage (V)					$I_F = 50mA$
Typical	42	02	10	540	$I_F = 50mA$
Minimum	55	32	32	100	
Luminous Intensity (mcd)					$I_F = 50mA$
Parameter	HGMF-K101	HGMF-K102	HGMF-D101A	HGMF-D102A	Condition
<b>ELECTRICAL \ OPTICAL CHARACTERISTICS</b> ( $T_A = 25^{\circ}C$ )					

Storage Temperature	-25 to +100	$^{\circ}C$
Operating Temperature	-50 to +100	$^{\circ}C$
Lead Soldering Time at 260 $^{\circ}C$	2	sec
Continuous DC Forward Current	30	mA
Peak Forward Current ( $t=1KHz$ , $DF=10\%$ )	300	mA
Power Dissipation	81	W
Parameter	RED	UNIT
<b>ABSOLUTE MAXIMUM RATING</b> ( $T_A = 25^{\circ}C$ )		



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

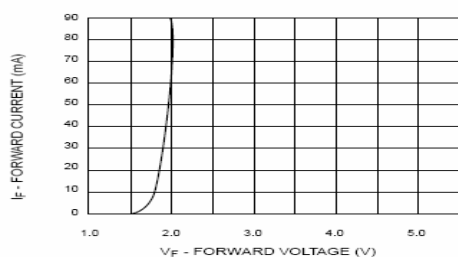


Fig. 1 Forward Current vs. Forward Voltage

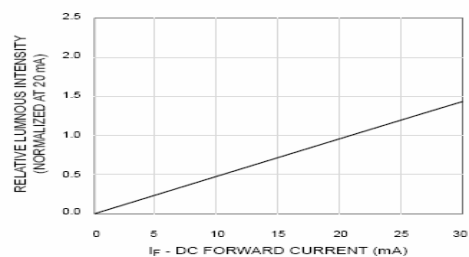


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

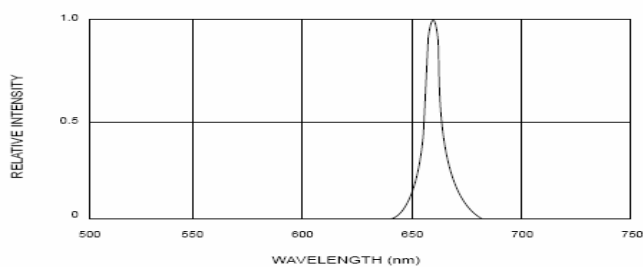


Fig. 3 Relative Intensity vs. Peak Wavelength

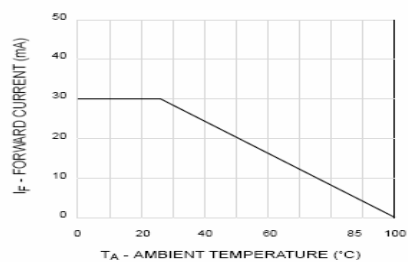
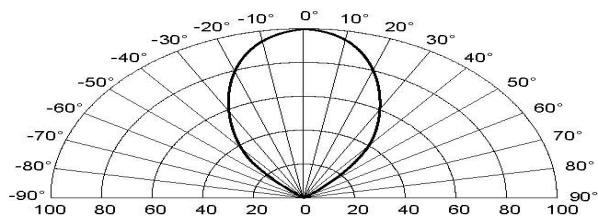


Fig. 4 Current Derating Curve



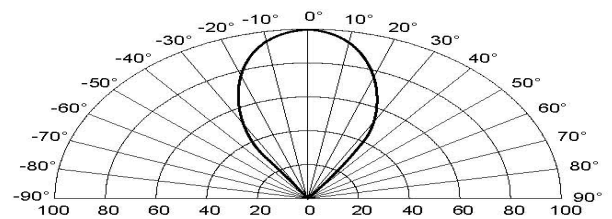
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### TYPICAL PERFORMANCE CURVES ( $T_A = 25^\circ\text{C}$ )



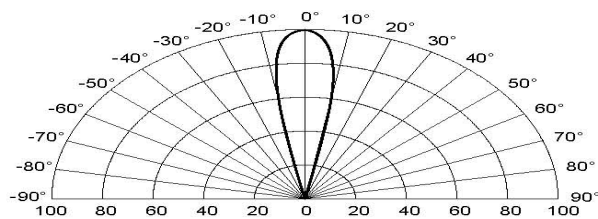
REL. LUMINOUS INTENSITY (%)

**Fig. 5A Radiation Diagram (HLMP-D101A)**



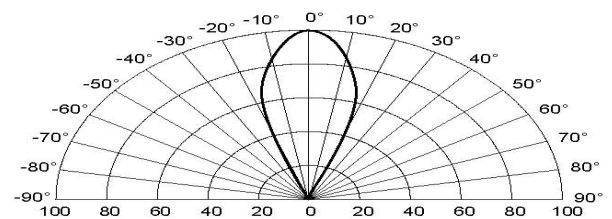
REL. LUMINOUS INTENSITY (%)

**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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