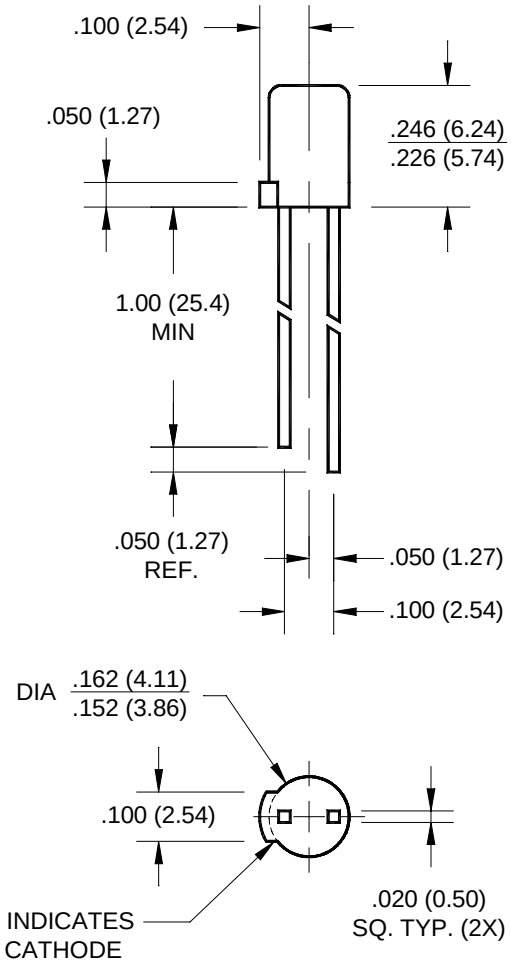
FAIRCHILD
SEMICONDUCTOR™

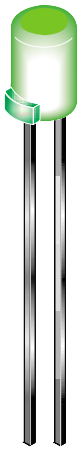
4 mm FLAT TOP LAMPS

HER	**HLMP-M200/M201**	**HLMP-M250/M251**
YELLOW	**HLMP-M300/M301**	**HLMP-M350/M351**
GREEN	**HLMP-M500/M501**	**HLMP-M550/M551**

PACKAGE DIMENSIONS



FEATURES



- Wide viewing angle
- Excellent for backlighting small areas
- Solid state reliability
- Choice of tinted clear or tinted diffused package

DESCRIPTION

Bright illumination and wide viewing angle are two outstanding features of the 4 mm flat top lamps. The cylindrical shape and flat emitting surface make these lamps particularly well suited for applications requiring high light output in minimal space.

NOTES: ALL DIMENSIONS ARE IN INCHES (mm).

ABSOLUTE MAXIMUM RATING (T_A =25°C)

Parameters	HER	YELLOW	GREEN	UNITS
Power Dissipation	135	120	135	mW
Peak Forward Current (1 µS pulse width, 0.3% duty cycle)	90	60	90	mA
Reverse Voltage	5	5	5	V
Lead Soldering Time at 260° C	5	5	5	sec
Continuous Forward Current	30	20	30	mA
Operating Temperature	-55 to +100	-55 to +100	-55 to +100	°C
Storage Temperature	-55 to +100	-55 to +100	-55 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Pararmeter	HER HLMP-M200/M201	YELLOW HLMP-M300/M301	GREEN HLMP-M500/M501	Condition
Luminous Intensity (mcd)				I_F = 20mA
Minimum	3.4 / 5.4	3.6 / 5.7	4.2 / 6.7	
Typical	5.0 / 7.0	5.0 / 7.0	7.0 / 10.0	
Forward Voltage (V)				I_F = 20mA
Maximum	3.0	3.0	3.0	
Typical	2.2	2.2	2.3	
Peak Wavelength (nm)	635	585	565	I_F = 20mA
Reverse Voltage (V)	5	5	5	I_R = 100µA
Viewing Angle (°)	135	135	135	I_F = 20mA

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Pararmeter	HER HLMP-M250/M251	YELLOW HLMP-M350/M351	GREEN HLMP-M550/M551	Condition
Luminous Intensity (mcd)				I_F = 10mA
Minimum	3.4 / 5.4	3.6 / 5.7	4.2 / 6.7	
Typical	5.0 / 7.0	5.0 / 7.0	10.0 / 16.0	
Forward Voltage (V)				I_F = 20mA
Maximum	3.0	3.0	3.0	
Typical	2.2	2.2	2.3	
Peak Wavelength (nm)	635	585	565	I_F = 10mA
Reverse Voltage (V)	5	5	5	I_R = 100µA
Viewing Angle (°)	80	80	80	I_F = 10mA

TYPICAL PERFORMANCE CURVES (T_A =25°C)

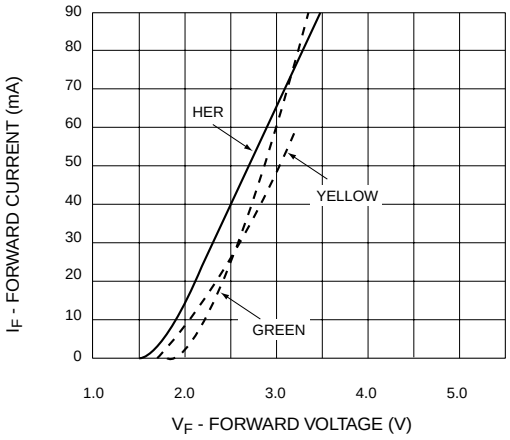


Fig. 1 Forward Current vs. Forward Voltage

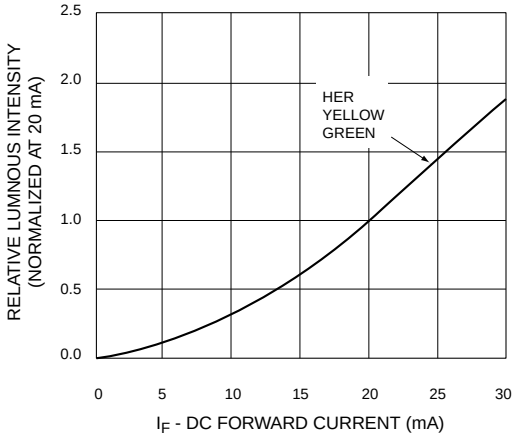


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

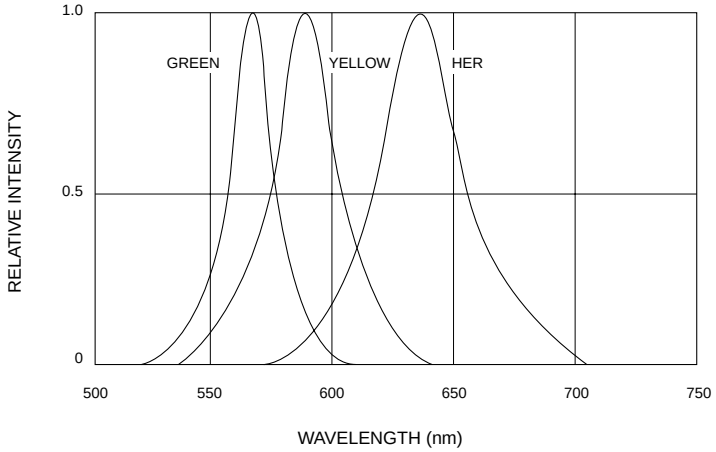


Fig. 3 Relative Intensity vs. Peak Wavelength

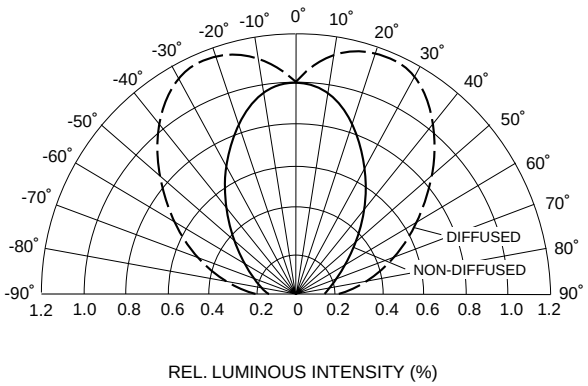


Fig.4 Radiation Diagram

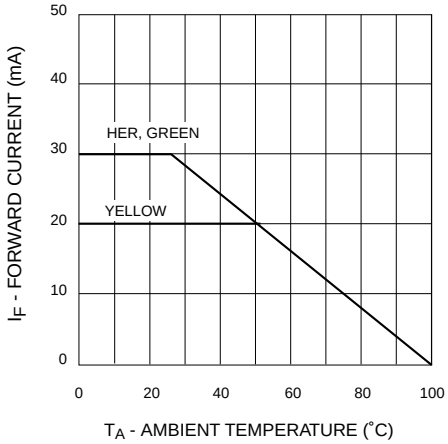


Fig. 5 Current Derating Curve

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