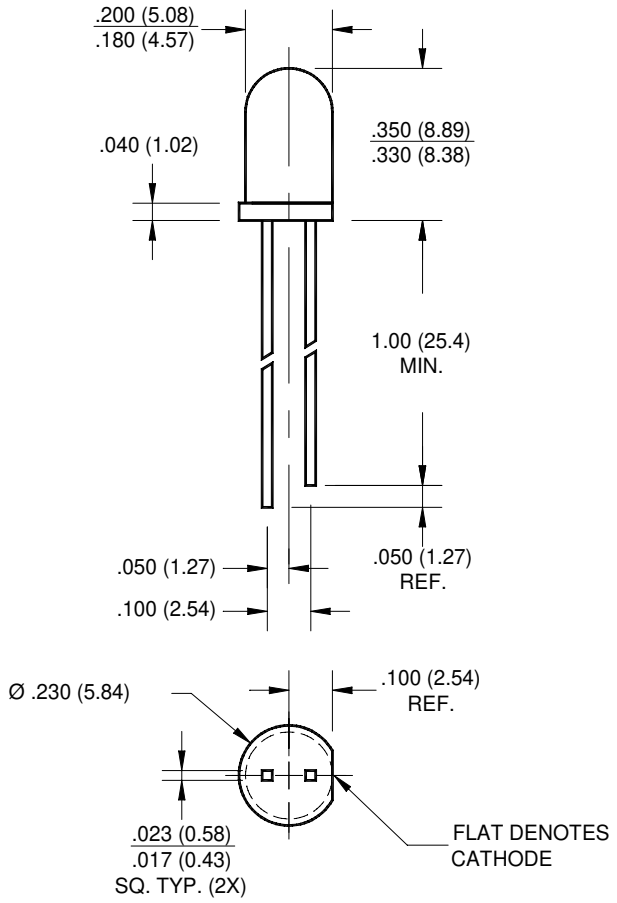
FAIRCHILD
SEMICONDUCTOR™

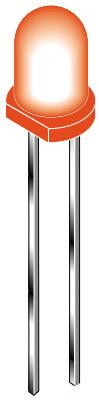
T-1 3/4 (5mm)
SOLID STATE LAMPS

PURE GREEN	HLMP-D600	TINTED
PURE GREEN	HLMP-D640	CLEAR
SOFT ORANGE	HLMP-D400	TINTED
SOFT ORANGE	HLMP-D401	TINTED

PACKAGE DIMENSIONS



FEATURES



- Popular T-1 3/4 package
- Low drive current
- Solid state reliability
- Wide viewing angle
- Choice of pure green or soft orange colors

DESCRIPTION

These T-1 3/4 LEDs are widely used as general purpose indicators. The pure green lamps is made with a GaP LED on a GaP substrate. The soft orange is made with a GaAsP LED on a GaP substrate. They are encapsulated in epoxy packages and are designed to provide superior light output and a wide viewing angle.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCES ARE ±.010" INCH UNLESS SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT .040" (1 mm) DOWN THE LEADS.

ABSOLUTE MAXIMUM RATING (T_A =25°C)

Parameter	GREEN	ORANGE	UNITS
Power Dissipation	110	110	mW
Forward Current	40	40	mA
Peak Forward Current (f=1kHz, DF=10%)	200	200	mA
Lead Soldering Time at 260° C	5	5	sec
Operating Temperature	-40 to +100	-40 to +100	°C
Storage Temperature	-40 to +100	-40 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	HLMP-D600	HLMP-D640*	HLMP-D400	HLMP-D401	Condition
Luminous Intensity (mcd)					I_F = 10mA
Minimum	1.0	6.7	2.1	4.0	
Typical	3.0	6.0	3.5	7.0	
Forward Voltage (V)					I_F = 10mA
Maximum	2.7	3.0	2.4	2.4	
Typical	2.1	2.2	1.9	1.9	
Peak Wavelength (nm)	555	555	612	612	I_F = 10mA
Spectral Line Half Width (nm)	24	24	40	40	I_F = 10mA
Reverse Voltage (V)	5	5	5	5	I_R = 100µA
Viewing Angle (°)	60	24	60	60	I_F = 10mA

* HLMP-D640 test condition is I_F = 20mA

TYPICAL PERFORMANCE CURVES (T_A =25°C)

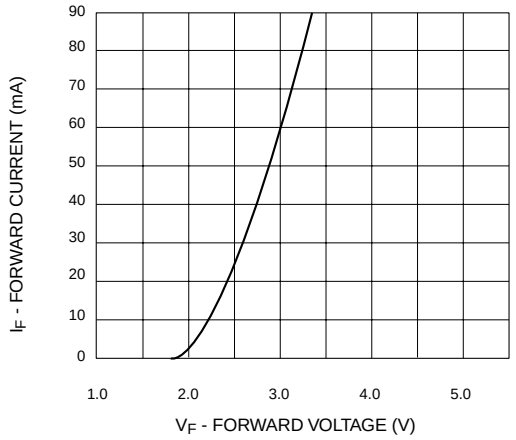


Fig. 1 Forward Current vs. Forward Voltage

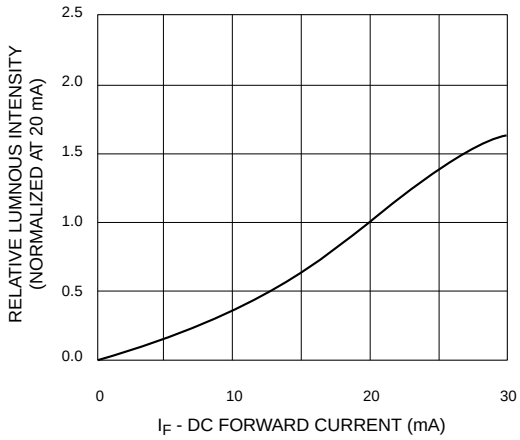


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

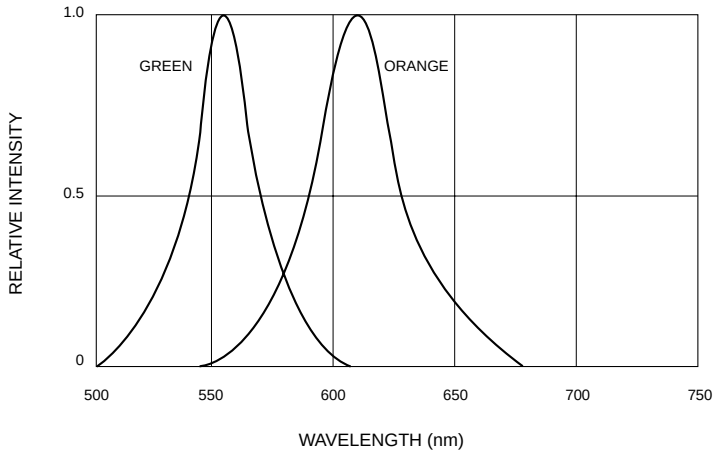


Fig. 3 Relative Intensity vs. Peak Wavelength

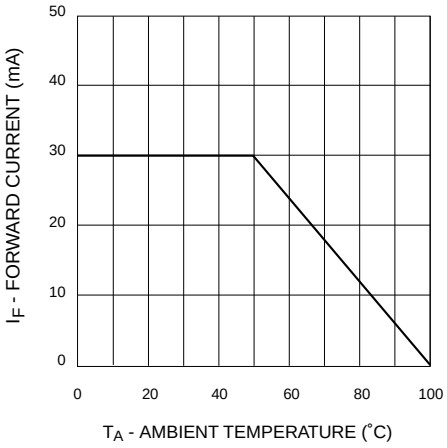


Fig. 4 Current Derating Curve

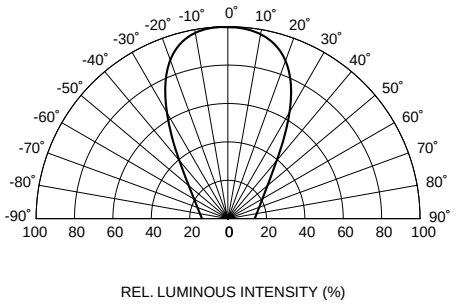


Fig. 5A Radiation Diagram (HLMP-D600, HLMP-D400, HLMP-D401)

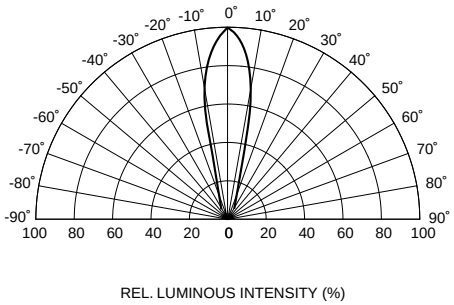


Fig. 5B Radiation Diagram (HLMP-D640)

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