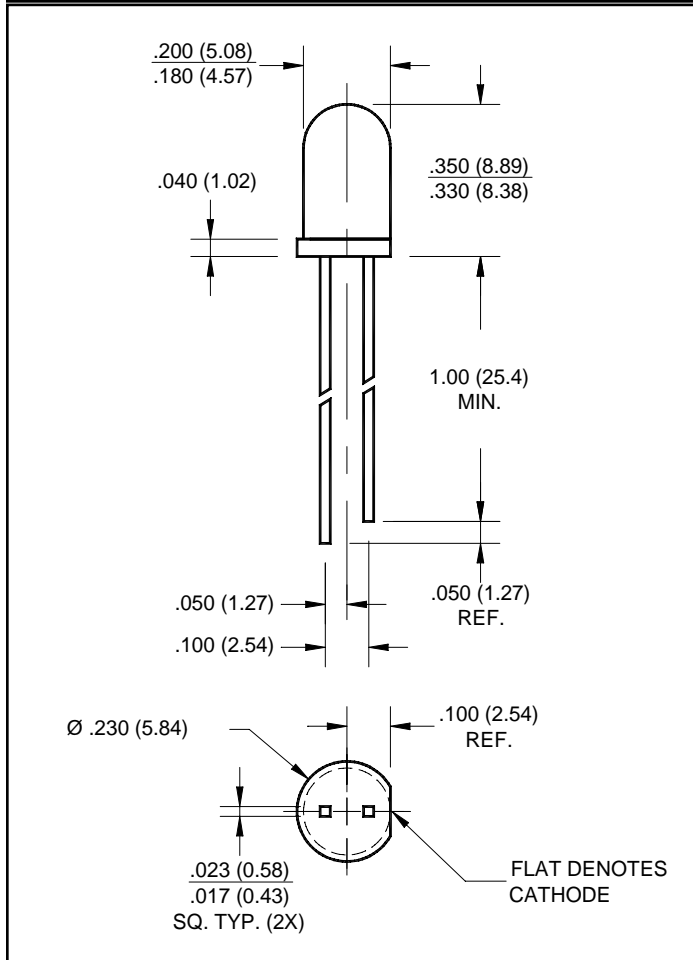


PURE GREEN
PURE GREEN
SOFT ORANGE
SOFT ORANGE

HLMP-D600
HLMP-D640
HLMP-D400
HLMP-D401

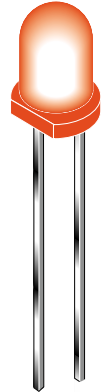
TINTED
CLEAR
TINTED
TINTED

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 $\pm .010$ " 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 ($T_A = 25^\circ\text{C}$)

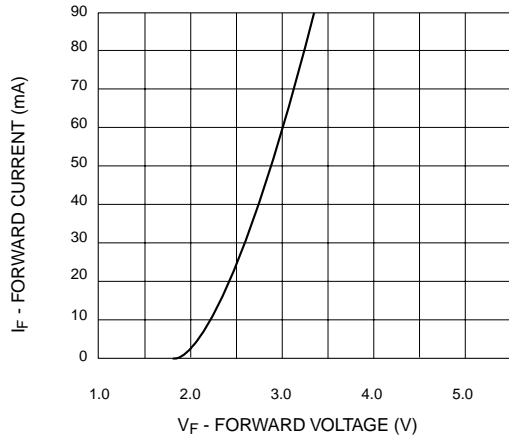


Fig. 1 Forward Current vs. Forward Voltage

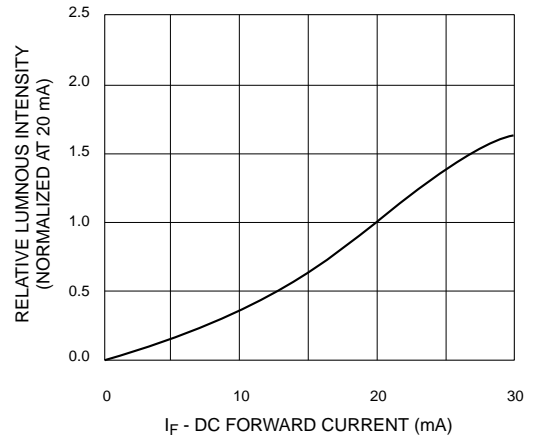


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

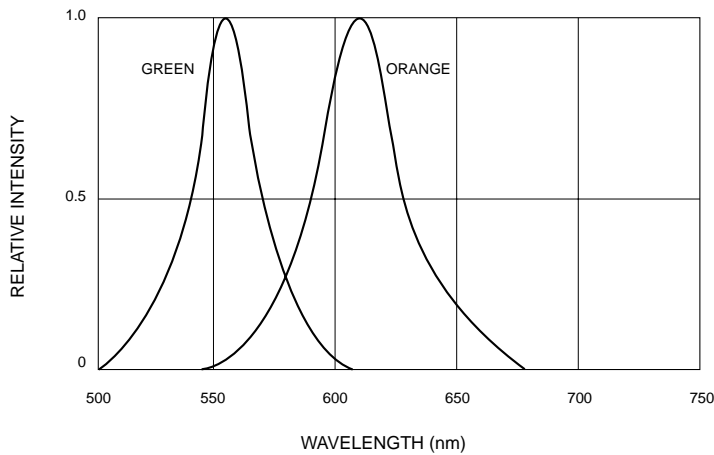


Fig. 3 Relative Intensity vs. Peak Wavelength

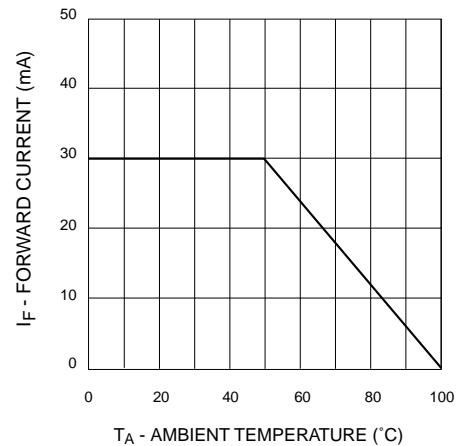
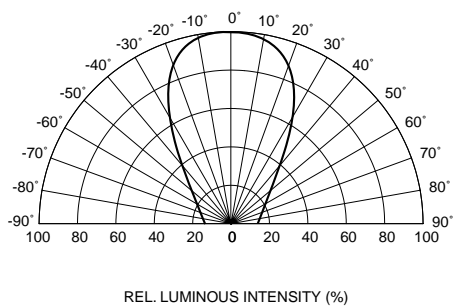
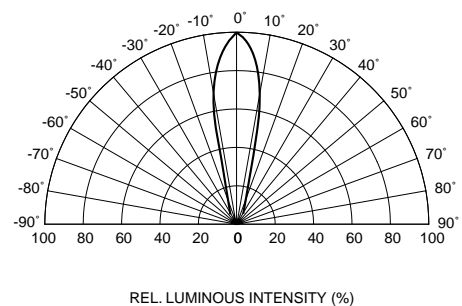


Fig. 4 Current Derating Curve



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



**Fig. 5B Radiation Diagram
(HLMP-D640)**

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