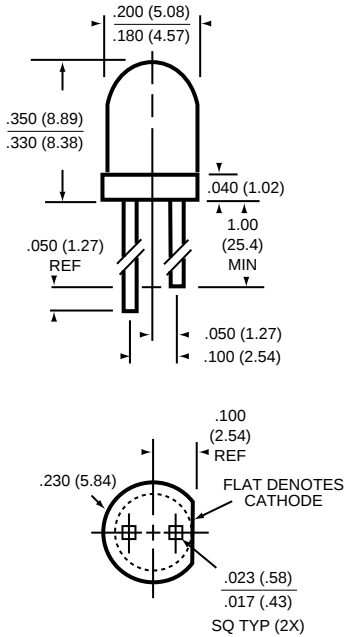


# SUPER BRIGHT AlInGaP T-1 3/4 (5 mm) LOW CURRENT LED LAMP - Tinted & Diffused

## PACKAGE DIMENSIONS



### NOTES:

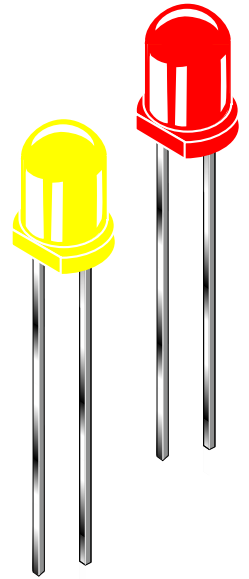
1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.

**SUPER RED**  
**SUPER YELLOW**

**HLMP-4700L**  
**HLMP-4719L**

## FEATURES

- Popular T-1 3/4 package with 100 mil. lead spacing
- Super high brightness at low current (2 mA)
- Solid state reliability
- Tinted and diffused
- CMOS and TTL compatible



## DESCRIPTION

These T-1 3/4 super bright low current lamps have a moderate viewing angle of 35°. The HLMP-47XXL series is made with an AlInGaP LED, which delivers performance, reliability and brightness superior to that of standard products.

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise specified)

| Parameter                                                 | Symbol           | Rating        | Unit |
|-----------------------------------------------------------|------------------|---------------|------|
| Operating Temperature                                     | T <sub>OPR</sub> | -55 to +100   | °C   |
| Storage Temperature                                       | T <sub>STG</sub> | -55 to +100   | °C   |
| Lead Soldering Time                                       | T <sub>SOL</sub> | 260 for 5 sec | °C   |
| Continuous Forward Current                                | I <sub>F</sub>   | 7.5           | mA   |
| Peak Forward Current<br>(f = 1.0 KHz, Duty Factor = 1/10) | I <sub>F</sub>   | 150           | mA   |
| Reverse Voltage                                           | V <sub>R</sub>   | 5             | V    |
| Power Dissipation                                         | P <sub>D</sub>   | 25            | mW   |

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**HLMP-4700L**  
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## ELECTRICAL / OPTICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

| Part Number                   | HLMP-4700L | HLMP-4719L | Condition            |
|-------------------------------|------------|------------|----------------------|
| Luminous Intensity (mcd)      |            |            | $I_F = 2 \text{ mA}$ |
| Minimum                       | 5          | 6          |                      |
| Typical                       | 8          | 10         |                      |
| Forward Voltage (V)           |            |            | $I_F = 2 \text{ mA}$ |
| Maximum                       | 2.4        | 2.4        |                      |
| Typical                       | 2.0        | 2.0        |                      |
| Wavelength (nm)               |            |            | $I_F = 2 \text{ mA}$ |
| Peak                          | 640        | 590        |                      |
| Dominant                      | 631        | 589        |                      |
| Spectral Line Half Width (nm) | 20         | 15         | $I_F = 2 \text{ mA}$ |
| Viewing Angle ( $^\circ$ )    | 35         | 35         | $I_F = 2 \text{ mA}$ |

## TYPICAL PERFORMANCE CURVES

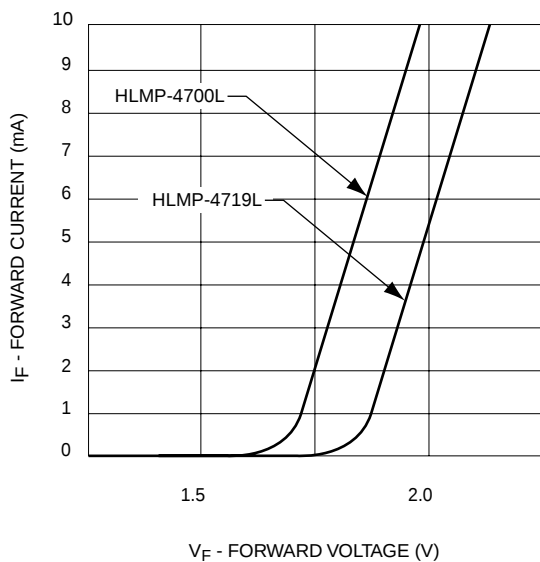


Fig. 1 Forward Current vs. Forward Voltage

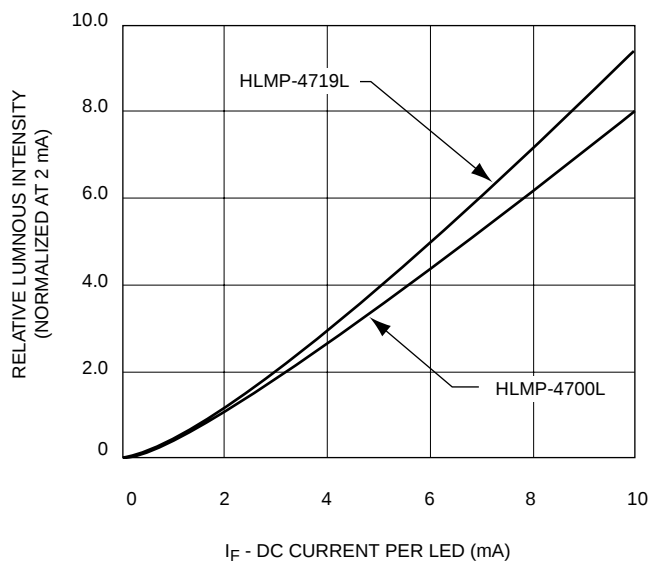
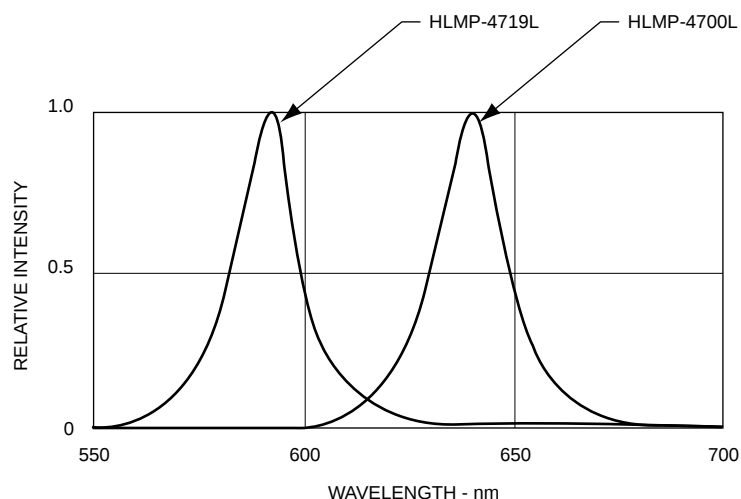


Fig. 2 Relative Luminous Intensity vs. Forward Current

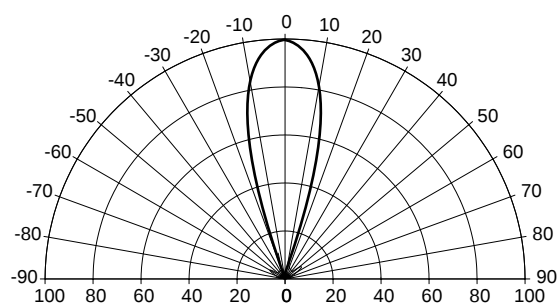
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**Fig. 3 Relative Intensity vs Peak Wavelength**



**Fig. 4 Radiation Diagram**