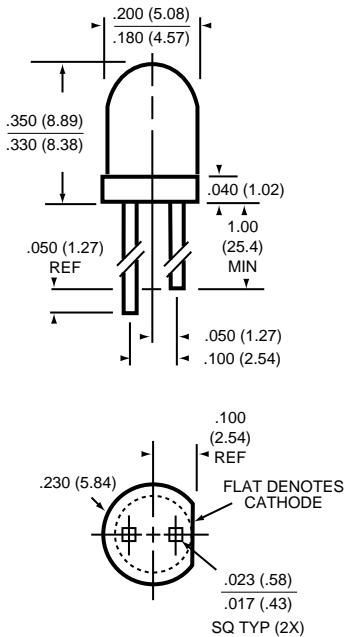


# SUPER BRIGHT AlInGaP T-1 3/4 (5 mm) LOW CURRENT LED LAMP - Tinted & Diffused

## PACKAGE DIMENSIONS



### NOTES:

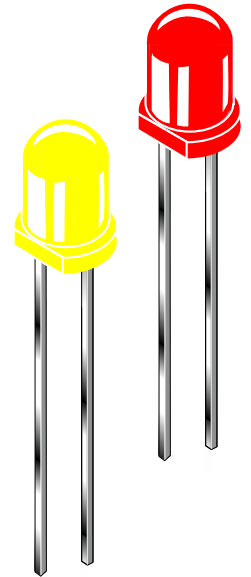
1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.

**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 (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

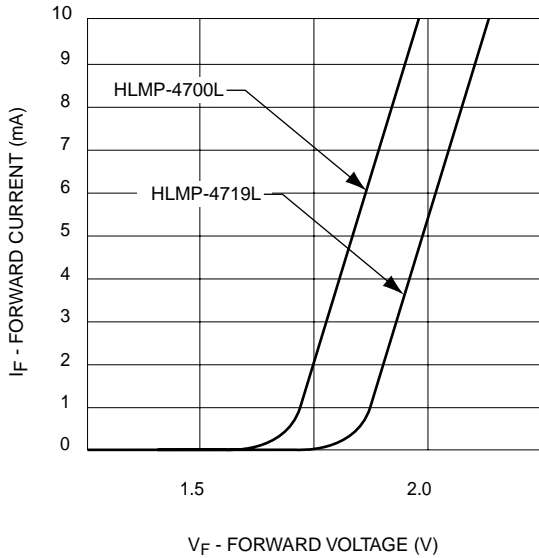
**SUPER RED**  
**SUPER YELLOW**

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

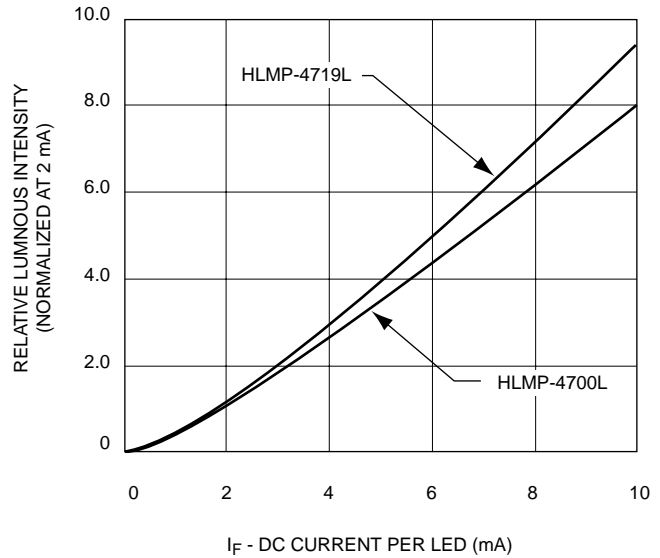
**ELECTRICAL / OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$ )

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**



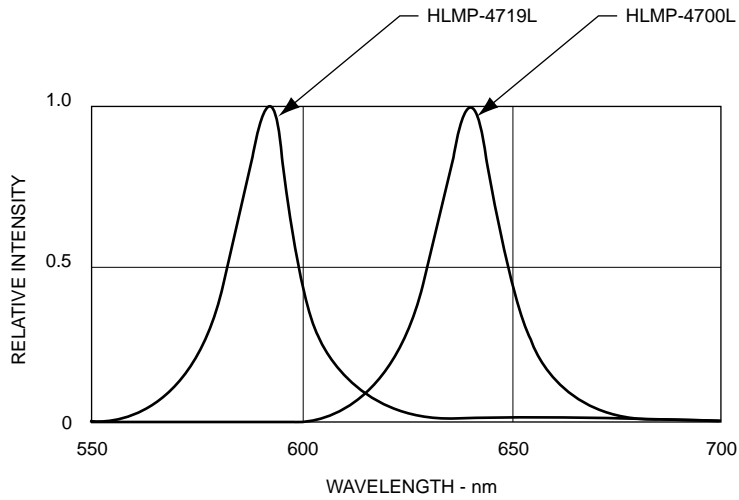
**Fig. 1 Forward Current vs. Forward Voltage**



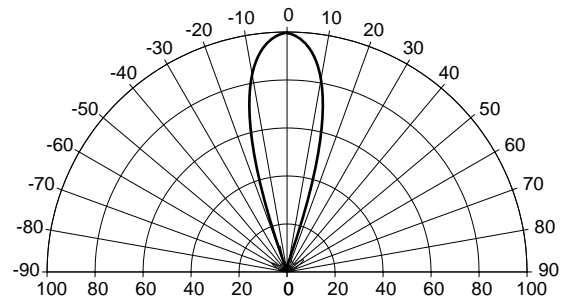
**Fig. 2 Relative Luminous Intensity vs. Forward Current**

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

<b>SUPER RED</b>	<b>HLMP-4700L</b>
<b>SUPER YELLOW</b>	<b>HLMP-4719L</b>



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



**Fig. 4 Radiation Diagram**

**DISCLAIMER**

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

**LIFE SUPPORT POLICY**

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.