



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



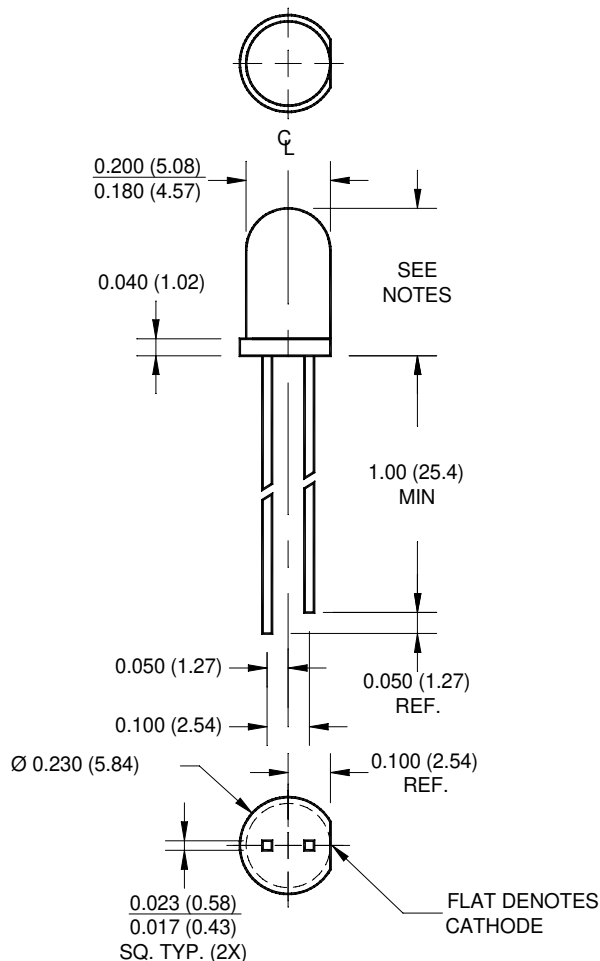
HIGH EFF. RED
HIGH EFF. RED

HLMP-3300
HLMP-3301

HIGH EFF. RED
HIGH EFF. RED
STANDARD RED

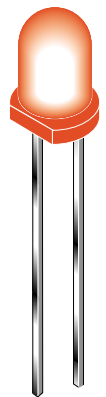
HLMP-3315
HLMP-3316
FLV110

PACKAGE DIMENSIONS



FEATURES

- Popular, general purpose lamps
- Wide and narrow viewing angle devices for direct view or backlighting
- Solid state reliability
- Sturdy leads for easy assembly



DESCRIPTION

The HLMP-33XX series consists of high efficiency red T-1 3/4 lamps with a viewing angle of 35° or 65°. FLV110 is a low profile standard red T-1 3/4 lamp with a diffused lens, providing a viewing angle of 70°.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCES ARE ± 0.010 " INCH UNLESS SPECIFIED.
3. AN EPOXY MENISCUS MAY EXTEND ABOUT .040" (1 mm) DOWN THE LEADS.
4. DIMENSIONS X.
PACKAGE HEIGHT HLMP = .330 (8.38)/.350 (8.89)
FLV = .275 (6.98)/.295 (7.49)
5. FLV FLANGE HEIGHT = 0.040 (1.02)
0.060 (1.53)

ABSOLUTE MAXIMUM RATING (T_A = 25°C)

Parameter	HLMP33XX	FLV110	UNITS
Power Dissipation	135	135	mW
Average Forward Current	30	30	mA
Peak Forward Current (1 μ S pulsewidth, 0.3% duty cycle)(FLV110 1 amp)	90	90	mA
Reverse Voltage	5	5	V
Lead Soldering Time at 260° C	5	5	sec
Operating Temperature	-55 to +100	-55 to +100	°C
Storage Temperature	-55 to +100	-55 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T _A =25°C)						
Part Number	HLMP-3300	HLMP-3301	HLMP-3315	HLMP-3316	FLV110	Condition
Luminous Intensity (mcd)						I _F = 10mA
Minimum	2.0	4.0	12	20	0.8*	
Typical	3.5	7.0	18	35	3.0*	
Forward Voltage (V)						I _F = 10mA
Maximum	3.0	3.0	3.0	3.0	2.0	
Typical	2.2	2.2	2.2	2.2	1.6	
Peak Wavelength (nm)	635	635	635	635	660	I _F = 10mA
Reverse Voltage (V)	5	5	5	5	5	I _R = 100μA
Viewing Angle (°)	65	65	35	35	70	I _F = 10mA

* For FLV110 Test I_F = 20mA

TYPICAL PERFORMANCE CURVES ($T_A = 25^\circ\text{C}$)

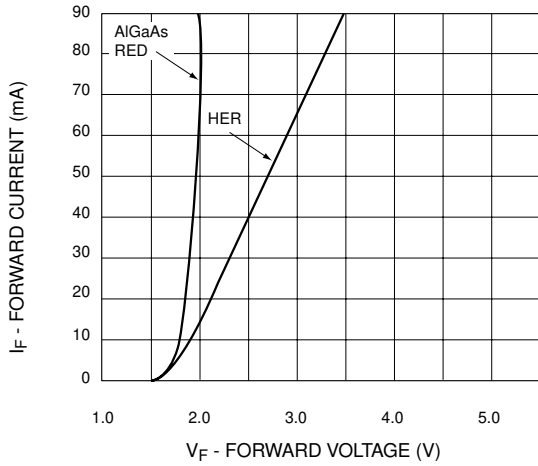


Fig. 1 Forward Current vs. Forward Voltage

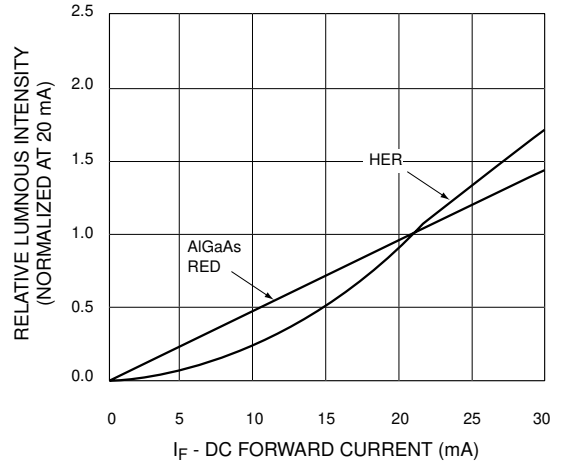


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

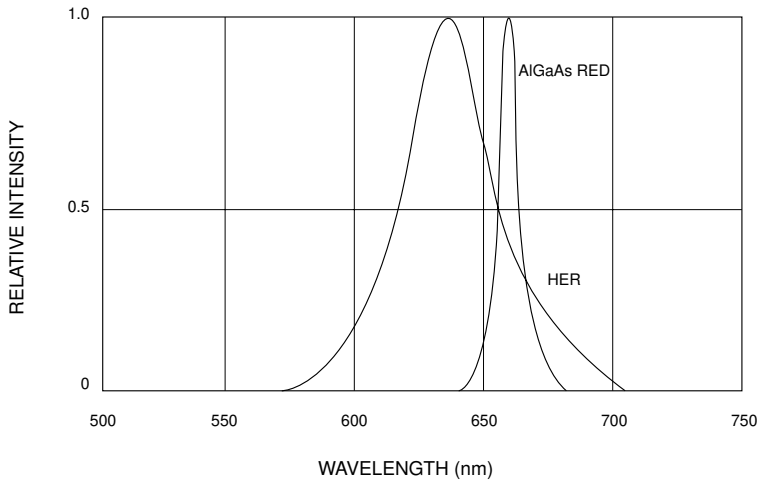


Fig. 3 Relative Intensity vs. Peak Wavelength

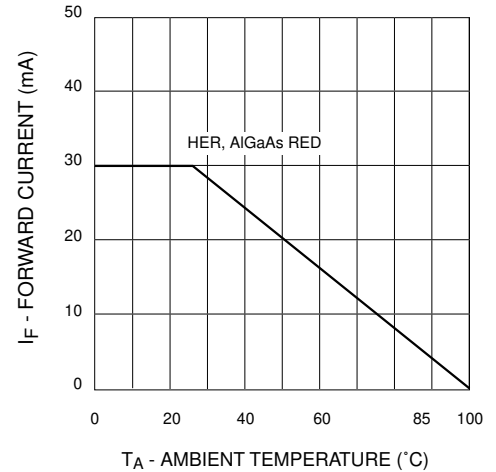


Fig. 4 Current Derating Curve

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