

Red GaAsP LED Lamps

Optoelectronic Products

FLV111 FLV112 FLV117

General Description

The FLV111 is a water clear version of the FLV110. The FLV112 is a diffused lens in clear (non-red) epoxy. FLV117 is a low-cost lamp encapsulated in diffused red epoxy. Visual light emission is in the 600-700 nm range.

Solid State—No Replacement Required
No Socket Required
High On/Off Contrast
Flexible Pins For Good Heat Sinking And Right-Angle Bending
Fits Standard Sockets And Drilled Holes
Single Molded Body Eliminates Thermal Cycling Problems
High-Temperature Epoxy Encapsulation Withstands Severe Environmental Temperatures
Low Power Consumption Means IC Compatibility

Absolute Maximum Ratings

Maximum Temperature and Humidity

Storage Temperature	-55°C to +150°C
Junction Temperature	125°C
Pin Temperature (Soldering, 5 s)	260°C
Relative Humidity at 85°C	85%

Maximum Power Dissipation

Total Dissipation at $T_A = 25^\circ\text{C}$	100 mW
Derate Linearly from 100°C	4.0 mW/°C

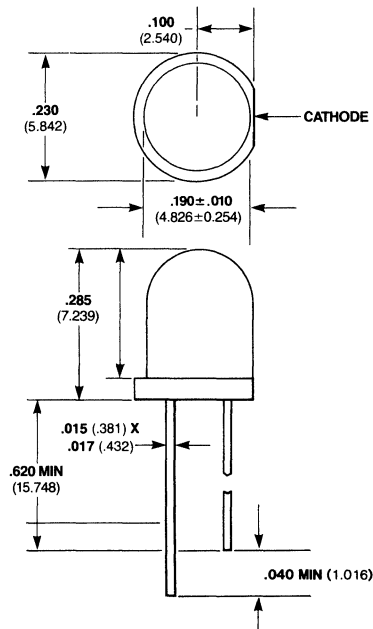
Maximum Voltage and Currents

V_R Reverse Voltage	3.0 V
I_F Forward dc Current	50 mA
I_{pk} Peak Forward Current (1.0 μs pulse)	1.0 A

Electrical and Radiant Characteristics $T_A = 25^\circ\text{C}$

Symbol	Characteristic	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage		1.7	3.0	V	$I_F = 20\text{ mA}$
BV_R	Reverse Voltage		8.0		V	$I_R = 10\ \mu\text{A}$
I_O	Axial Luminous Intensity					
	FLV111, FLV112	0.8	2.0		mcd	$I_F = 20\text{ mA}$
	FLV117	0.2	1.0		mcd	$I_F = 20\text{ mA}$
$\theta_{1/2}$	Angle of Half Intensity				degrees	$I_F = 20\text{ mA}$
	FLV111, FLV112		± 35		degrees	$I_F = 20\text{ mA}$
	FLV117		± 20		degrees	$I_F = 20\text{ mA}$
λ_{pk}	Peak Wavelength		665		nm	$I_F = 20\text{ mA}$

Package Outline



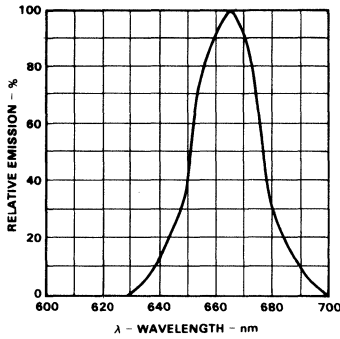
Notes

All dimensions in inches **bold** and millimeters (parentheses)
 Tolerance unless specified = $\pm .015$ ($\pm .381$)

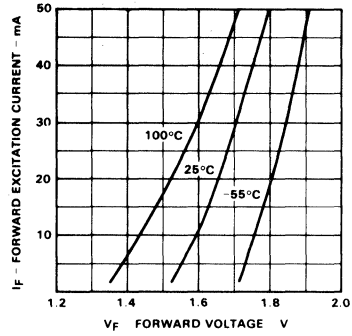
Typical Electrical Characteristic Curves

FLV111 FLV112 FLV117

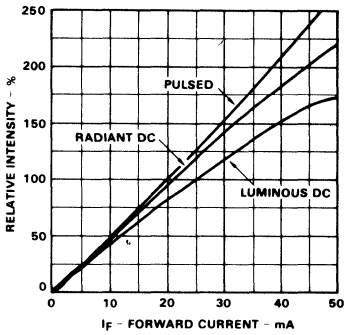
Emission Spectrum



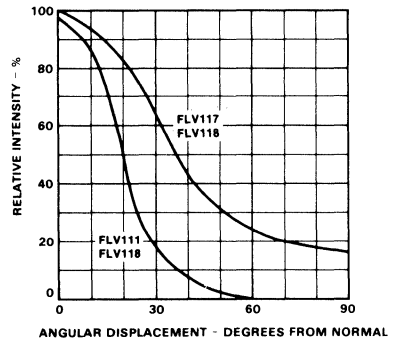
Forward Current vs Forward Voltage



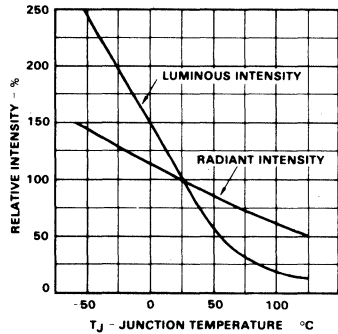
Intensity vs Forward Current



Intensity vs Viewing Angle



Intensity vs Temperature



Wavelength vs Temperature

