

### Features

- WIDE VIEWING ANGLE.
- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- TRANSPARENT AND WATER CLEAR TYPE AVAILABLE.

- |                            |               |
|----------------------------|---------------|
| L474IT HIGH EFFICIENCY RED | L474Gx GREEN  |
| L474EC HIGH EFFICIENCY RED | L474Yx YELLOW |

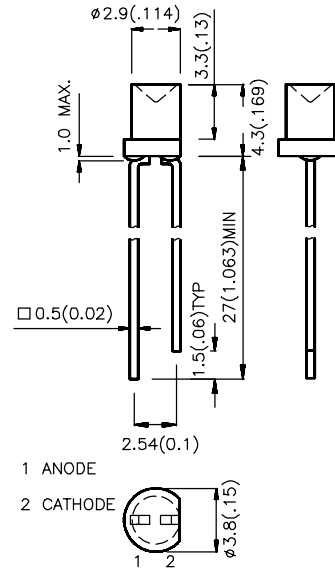
### Description

The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

### Package Dimensions



- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
  3. Lead spacing is measured where the lead emerge package.
  4. Specifications are subjected to change without notice.

### Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle
			Min.	Typ.	
L474IT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED TRANS.	3	6	130°
L474EC		WATER CLEAR	3	6	130°
L474GT	GREEN (GaP)	GREEN TRANS.	2	5	130°
L474GC		WATER CLEAR	2	5	130°
L474YT	YELLOW (GaAsP/GaP)	YELLOW TRANS.	2	5	130°
L474YC		WATER CLEAR	2	5	130°

Note:  
1.  $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

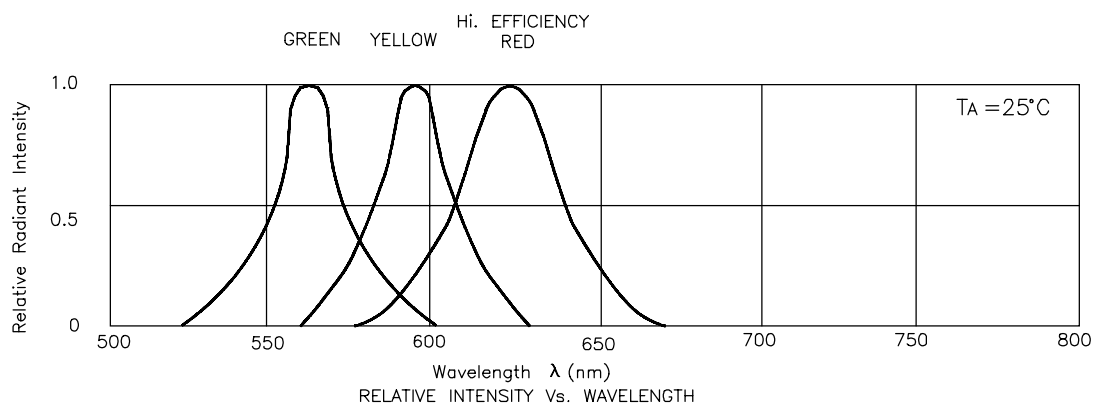
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Green Yellow	625 565 590		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow	45 30 35		nm	IF=20mA
C	Capacitance	High Efficiency Red Green Yellow	12 45 10		pF	VF=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	High Efficiency Red Green Yellow	2.0 2.2 2.1	2.5 2.5 2.5	V	IF=20mA
I <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

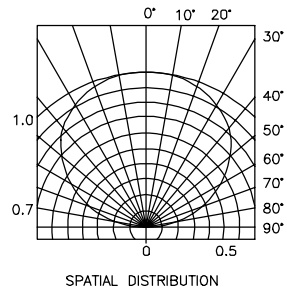
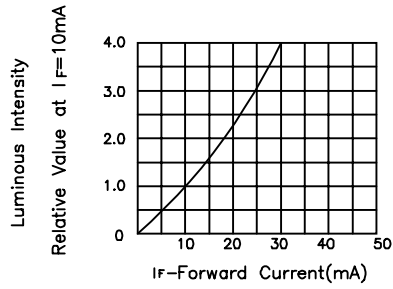
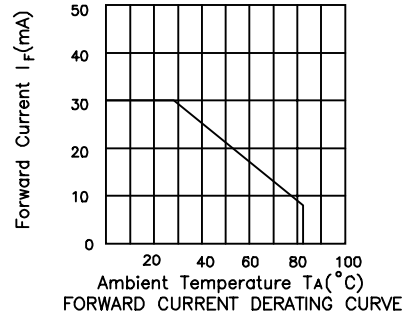
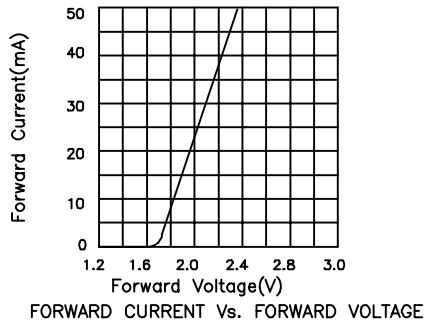
Parameter	High Efficiency Red	Green	Yellow	Units
Power dissipation	105	105	105	mW
DC Forward Current	30	25	30	mA
Peak Forward Current [1]	150	150	150	mA
Reverse Voltage	5	5	5	V
Operation/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 5 Seconds			

### Notes:

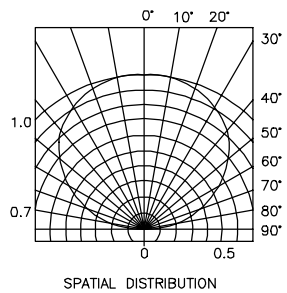
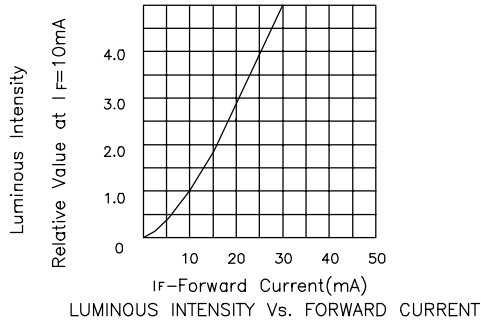
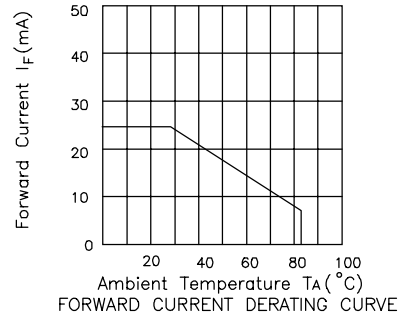
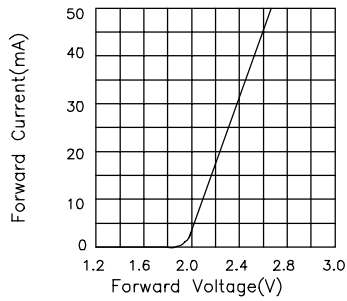
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



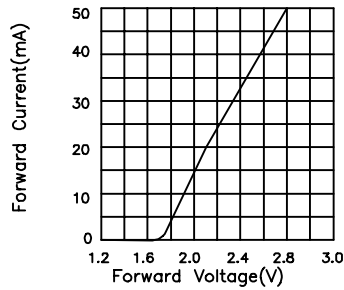
## High Efficiency Red L474IT,L474EC



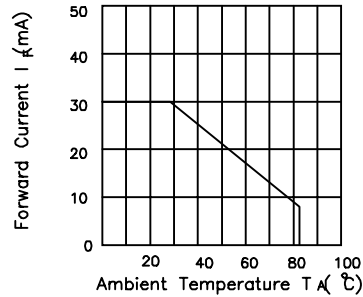
## Green L474GC,L474GT



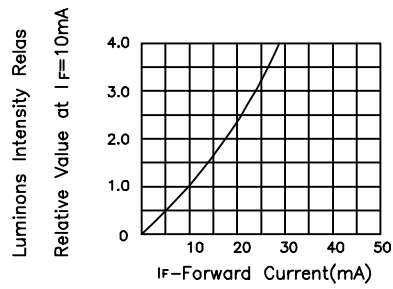
## Yellow L474YC,L474YT



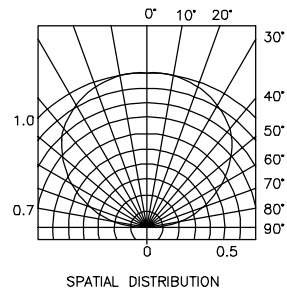
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION