

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

### Features

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

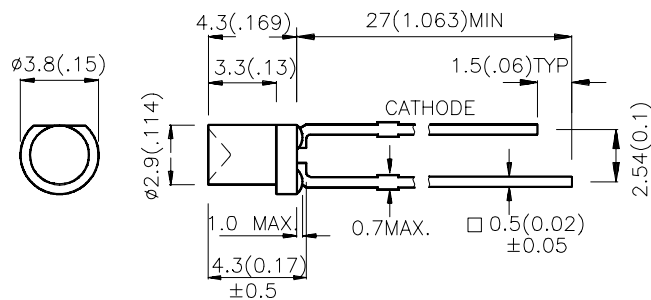
### Description

The High Efficiency Red 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 subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L474IT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED TRANSPARENT	3	8	130°
L474EC		WATER CLEAR	3	8	130°
L474GT	GREEN (GaP)	GREEN TRANSPARENT	2	5	130°
L474GC		WATER CLEAR	2	5	130°
L474YT	YELLOW (GaAsP/GaP)	YELLOW TRANSPARENT	2	5	130°
L474YC		WATER CLEAR	2	5	130°

Note:

1. θ1/2 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

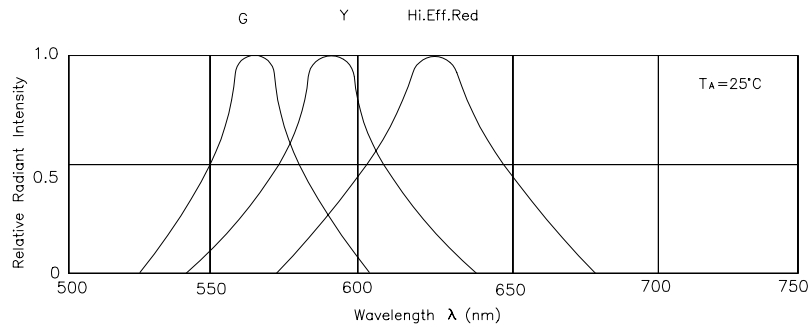
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Green Yellow	627 565 590		nm	IF=20mA
λ <sub>D</sub>	Dominate Wavelength	High Efficiency Red Green Yellow	625 568 588		nm	IF=20mA
Δλ <sub>1/2</sub>	Spectral Line Halfwidth	High Efficiency Red Green Yellow	45 30 35		nm	IF=20mA
C	Capacitance	High Efficiency Red Green Yellow	15 15 20		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	μA	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]	160	140	140	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 5 Seconds			

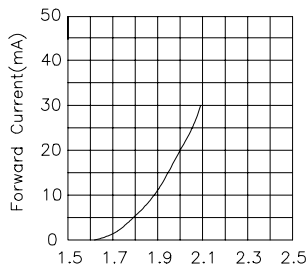
Notes:

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

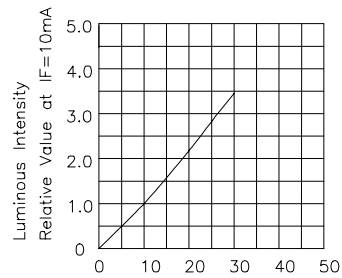


RELATIVE INTENSITY Vs. WAVELENGTH

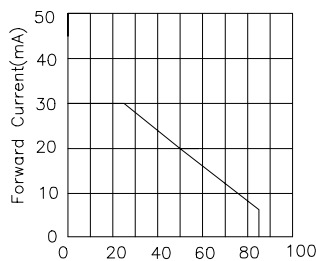
## High Efficiency Red L474IT



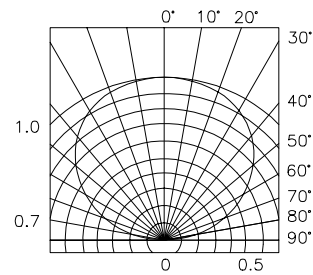
FORWARD CURRENT Vs  
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.  
FORWARD CURRENT

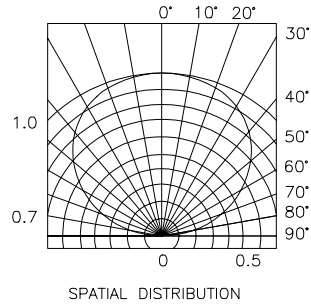
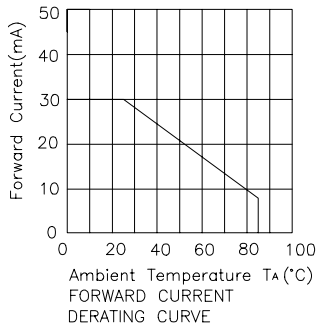
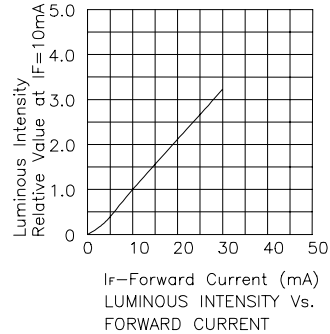
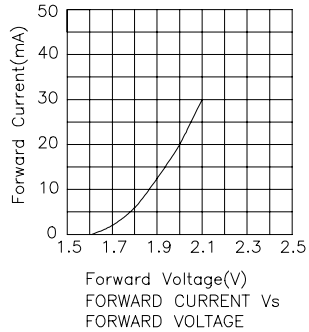


FORWARD CURRENT  
DERATING CURVE

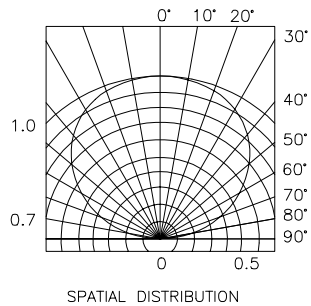
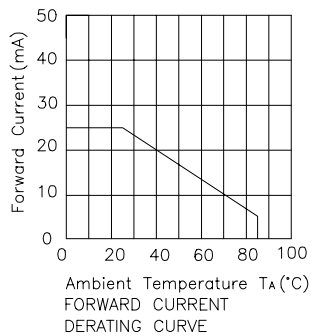
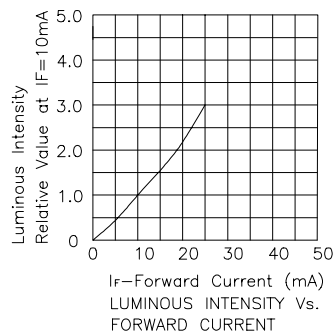
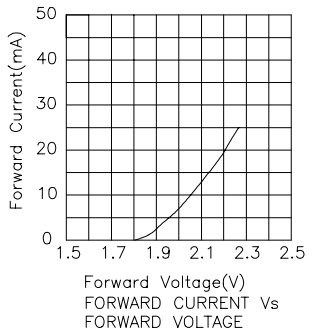


SPATIAL DISTRIBUTION

## High Efficiency Red L474EC



## Green L474GC,L474GT



## Yellow L474YC,L474YT

