

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.

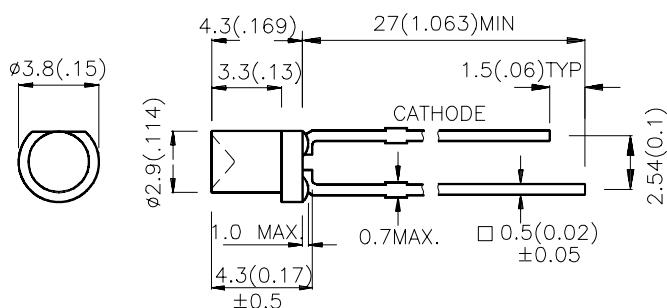
Description

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 | I _v (mcd) @ 10 mA | | Viewing Angle |
|----------|---------------------------------|---------------------|------------------------------|------|---------------|
| | | | Min. | Typ. | |
| 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 TRANSPARTENT | 2 | 5 | 130° |
| L474YC | | WATER CLEAR | 2 | 5 | 130° |

Note:

1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

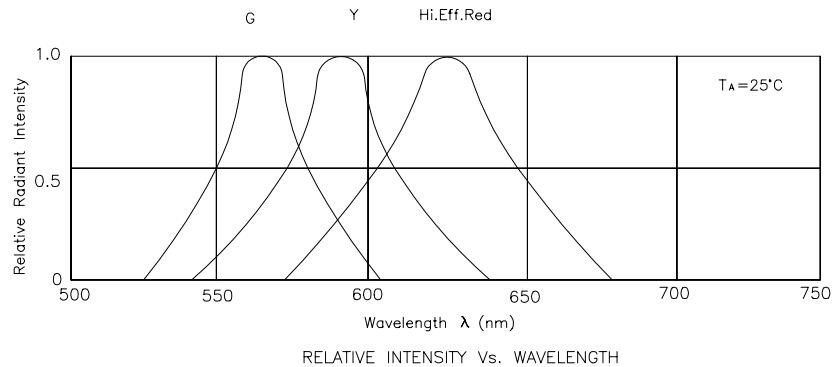
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|--|-------------------|-------------------|-------|-----------------|
| λ _{peak} | Peak Wavelength | High Efficiency Red Green Yellow | 627 565 590 | | nm | IF=20mA |
| λ D | Dominate Wavelength | High Efficiency Red Green Yellow | 625 568 588 | | nm | IF=20mA |
| Δλ1/2 | 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 _F | Forward Voltage | High Efficiency Red Green Yellow | 2.0 2.2 2.1 | 2.5 2.5 2.5 | V | IF=20mA |
| I _R | Reverse Current | All | | 10 | uA | VR = 5V |

Absolute Maximum Ratings at T_A=25°C

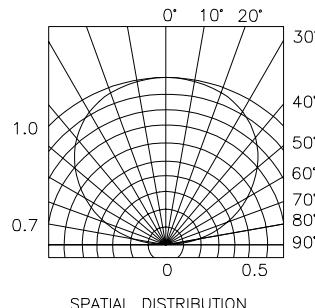
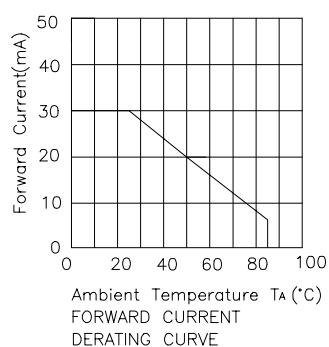
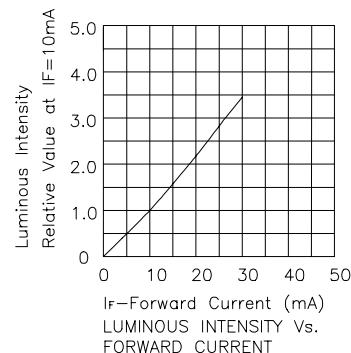
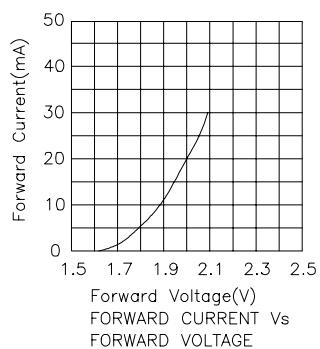
| Parameter | High Efficiency Red | Green | Yellow | Units |
|-------------------------------|---------------------|-------|--------|-------|
| Power dissipation | 105 | 105 | 105 | mW |
| DC Forward Current | 30 | 25 | 30 | mA |
| Peak Forward Current [1] | 160 | 140 | 140 | mA |
| Reverse Voltage | 5 | 5 | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | | | |
| Lead Solder Temperature [2] | 260°C For 5 Seconds | | | |

Notes:

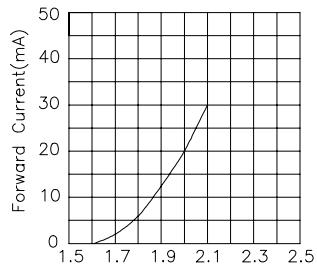
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



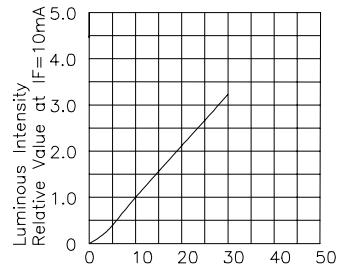
High Efficiency Red L474IT



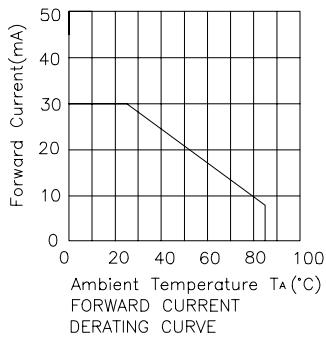
High Efficiency Red L474EC



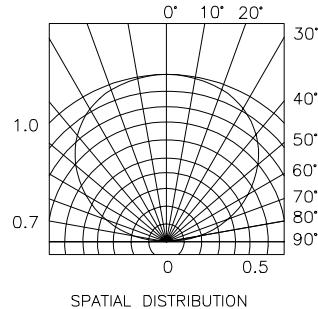
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



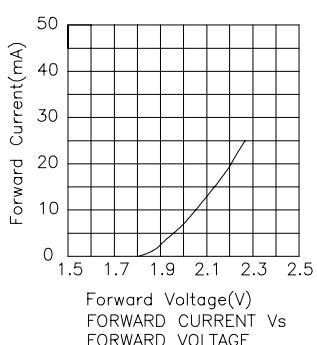
If—Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



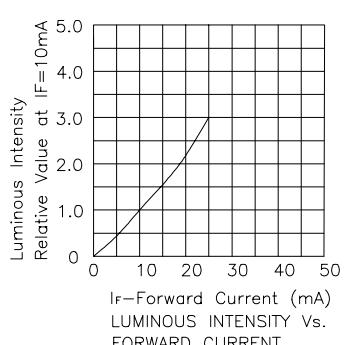
Ambient Temperature Ta (°C)
FORWARD CURRENT
DERATING CURVE



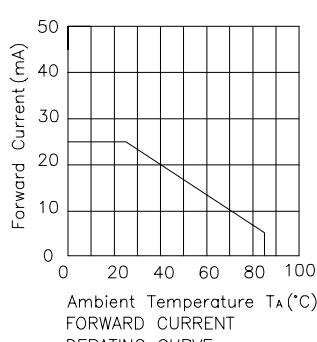
SPATIAL DISTRIBUTION



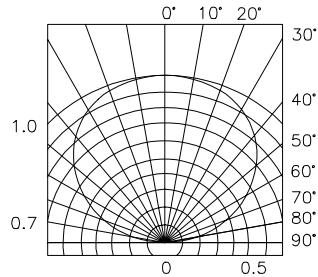
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



If—Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature Ta (°C)
FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION

Yellow L474YC,L474YT

