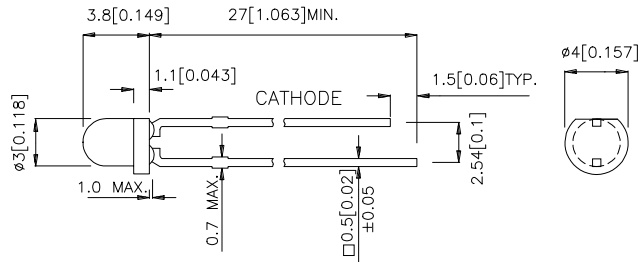


## Package Dimensions

## T-1 (3mm) SOLID STATE LAMP

E904ID

HIGH EFFICIENCY RED



## Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.

### 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.

## Description

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

## Selection Guide

Part No.	Emitting Color +Material	$\lambda D(nm)$	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle
				Min.	Typ.	2 $\theta$ 1/2
E904ID	GaAsP/GaP	625	RED DIFFUSED	3	12	60°

### Note:

1.  $\theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

DATA NO :EA0424

REV NO : V1

DATE : JAN/18/2004

### Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

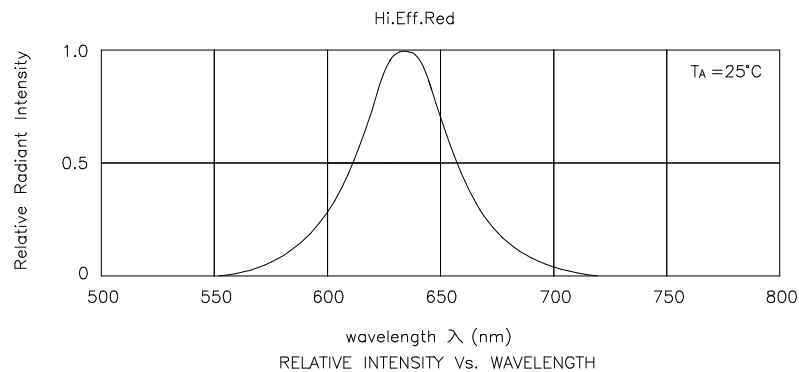
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
$\lambda_D$	Dominant Wavelength	High Efficiency Red	625		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red	45		nm	IF=20mA
C	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
$V_F$	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF=20mA
$I_R$	Reverse Current	High Efficiency Red		10	$\mu\text{A}$	VR = 5V

### Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

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

Notes:

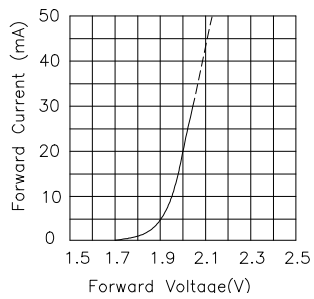
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



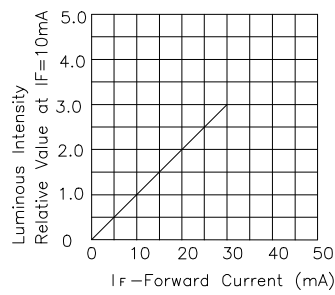
## High Efficiency Red

## E904ID

FORWARD CURRENT Vs.  
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



FORWARD CURRENT  
DERATING CURVE

