

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

L-7104EC

HIGH EFFICIENCY RED

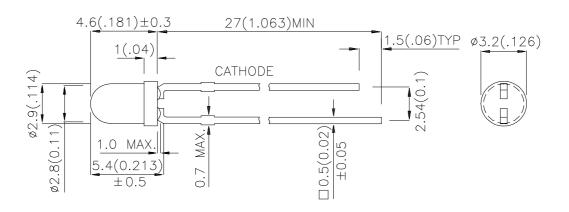
#### **Features**

- •LOW POWER CONSUMPTION.
- •POPULAR T-1 DIAMETER PACKAGE.
- •GENERAL PURPOSE LEADS.
- •RELIABLE AND RUGGED.
- •LONG LIFE SOLID STATE RELIABILITY.
- •AVAILABLE ON TAPE AND REEL.
- •RoHS COMPLIANT.

#### **Description**

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

## **Package Dimensions**



- 1. All dimensions are in millimeters (inches).
- Tolerance is ±0.25(0.01") unless otherwise noted.
   Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.

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#### **Selection Guide**

Part No.	Dice	Dice Lens Type Iv (mcd) @ 10mA		,	Viewing Angle
			Min.	Тур.	2 θ 1/2
L-7104EC	HIGH EFFICIENCY RED(GaAsP/GaP)	WATER CLEAR	18	60	34°

#### Note:

## Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
λD	Dominant Wavelength	High Efficiency Red	625		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
С	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF=20mA
lr	Reverse Current	High Efficiency Red		10	uA	VR = 5V

## Absolute Maximum Ratings at Ta=25°C

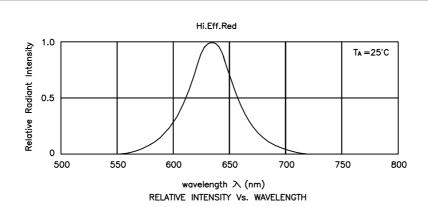
Parameter	High Efficiency Red	Units		
Power dissipation	105	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	160	mA		
Reverse Voltage	5	V		
Operating/Storage Temperature	perature -40°C To +85°C			
Lead Solder Temperature [2]	260°C For 3 Seconds			
Lead Solder Temperature [3]	260°C For 5 Seconds			

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
  2. 2mm below package base.
  3. 5mm below package base.

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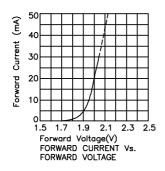
<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

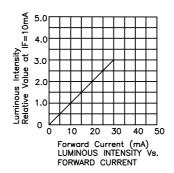
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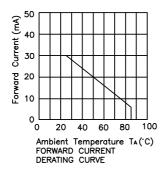


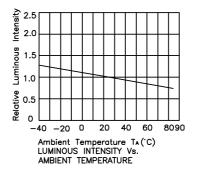
## **High Efficiency Red**

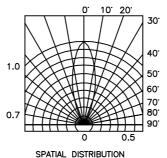
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#### Remarks

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous intensity/ luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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