

## T-1(3mm) ROUND BI-COLOR LED LAMP

L-937EYW

HIGH EFFICIENCY RED YELLOW

#### **Features**

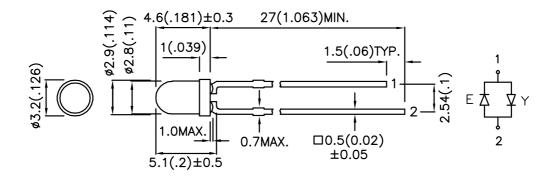
- •UNIFORM LIGHT OUTPUT.
- •LOW POWER CONSUMPTION.
- •I.C. COMPATIBLE.
- •LONG LIFE SOLID STATE RELIABILITY.
- •RoHS COMPLIANT.

### **Description**

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

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

## **Package Dimensions**



- 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 leads emerge from the package.
- 4. Specifications are subject to change without notice.

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APPROVED: J. Lu **CHECKED: Allen Liu** 

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### **Selection Guide**

	Part No.	Dice	Lens Type	lv (mcd) @ 20mA		Viewing Angle
				Min.	Тур.	201/2
	L-937EYW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	7	20	- 60°
		YELLOW (GaAsP/GaP)	White DIFFUSED	1.6	7	

# Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Yellow	627 590		nm	IF=20mA
λD	Dominant Wavelength	High Efficiency Red Yellow	625 588		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Yellow	45 35		nm	IF=20mA
С	Capacitance	High Efficiency Red Yellow	15 20		pF	VF=0V;f=1MHz
VF	Forward Voltage	High Efficiency Red Yellow	2.0 2.1	2.5 2.5	V	IF=20mA

# Absolute Maximum Ratings at Ta=25°C

Parameter	High Efficiency Red	Yellow	Units			
Power dissipation	105	105	mW			
DC Forward Current	30	30	mA			
Peak Forward Current [1]	160	140	mA			
Operating / storage Temperature	-40°C To +85°C					
Lead Solder Temperature [2]	260°C For 3 Seconds					
Lead Solder Temperature [3]	260°C For 5 Seconds					

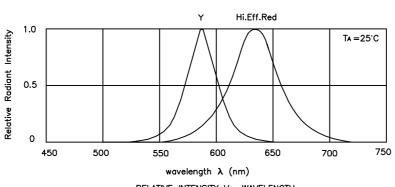
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

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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.

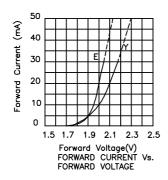
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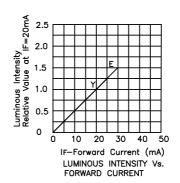


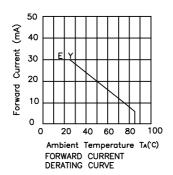
RELATIVE INTENSITY Vs. WAVELENGTH

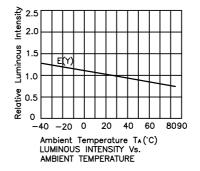
# High Efficiency Red / Yellow

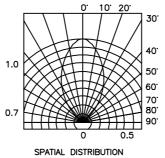
#### **L-937EYW**











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

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

Note: Accuracy may depend on the sorting parameters.

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