

# T-1 (3mm) SOLID STATE LAMP

L-934ID

HIGH EFFICIENCY RED

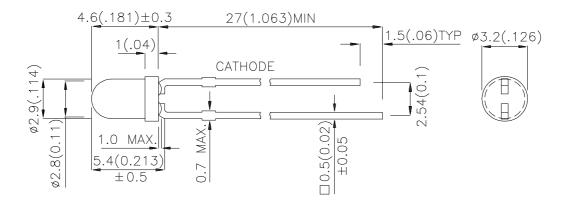
### **Features**

- 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**



### Notes:

- 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.

SPEC NO: DSAA4904 REV NO: V.5 DATE: APR/08/2005 PAGE: 1 OF 3
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: S.H.CHEN

# Kingbright

### **Selection Guide**

Part No.	Dice	Lens Type	Iv (mcd) @ 10mA		Viewing Angle
			Min.	Тур.	<b>2</b> θ <b>1/2</b>
L-934ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	20	60°

# Electrical / Optical Characteristics at T<sub>A</sub>=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
IR	Reverse Current	High Efficiency Red		10	uA	VR = 12V

## 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	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

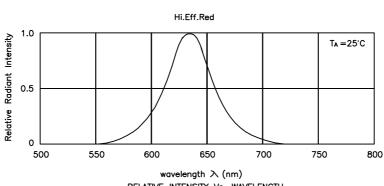
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

SPEC NO: DSAA4904 **REV NO: V.5** DATE: APR/08/2005 PAGE: 2 OF 3 DRAWN: S.H.CHEN

APPROVED: J. Lu CHECKED: Allen Liu

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

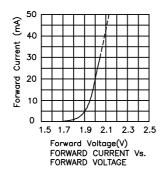
# Kingbright

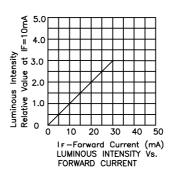


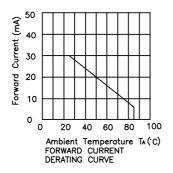
RELATIVE INTENSITY Vs. WAVELENGTH

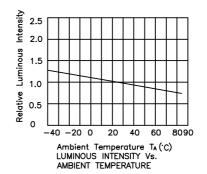
High Efficiency Red

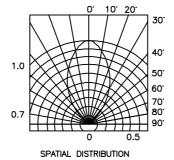
L-934ID











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.

SPEC NO: DSAA4904 **REV NO: V.5** DATE: APR/08/2005 PAGE: 3 OF 3 APPROVED: J. Lu CHECKED: Allen Liu DRAWN: S.H.CHEN