

#### T-1 (3mm) RESISTOR LED LAMPS

L934ID12V HIGH EFFICIENCY RED

L934GD12V GREEN L934YD12V YELLOW

L934SGD12V SUPER BRIGHT GREEN L934SRD12V SUPER BRIGHT RED

#### **Features**

- •12 VOLT SERIES IN T-1 PACKAGES.
- •INTEGRAL CURRENT LIMITING RESISTOR.
- •NO EXTERNAL CURRENT LIMITER REQUIRED WITH 12 VOLT SUPPLY.
- •COST EFFECTIVE SAVE SPACE AND RESISTOR COST.
- •WIDE VIEWING ANGLE.
- •AVAILABLE IN ALL COLORS.
- •12V INTERNAL RESISTOR.

#### **Description**

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

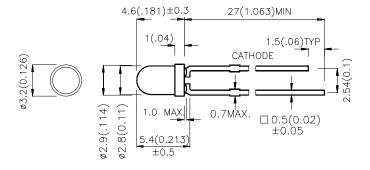
The Green and Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

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### **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.

 SPEC NO: CDA0812
 REV NO: V.1
 DATE: NOV/18/2001

 APPROVED: J. Lu
 CHECKED:
 DRAWN: Z.W.Yan



### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) VF=12V		<b>Viewing</b> Angle
		, ,	Min.	Тур.	201/2
L934ID12V	HIGH EFFICIENCY RED(GaAsP/GaP)	RED DIFFUSED	8	20	60°
L934GD12V	GREEN (GaP)	GREEN DIFFUSED	8	20	60°
L934YD12V	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	8	15	60°
L934SGD12V	SUPER BRIGHT GREEN(GaP)	GREEN DIFFUSED	8	20	60°
L934SRD12V	SUPER BRIGHT RED(GaAlAs)	RED DIFFUSED	40	100	60°

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Тур.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565	nm	VF=12V
λD	Wavelength current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	nm	VF=12V
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30	nm	VF=12V
I <sub>F</sub>	Forward Current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	8.5 8.5 8.5 8.5 8.5	mA	VF=12V
I <sub>R</sub>	Reverse Current	All	10	uA	VR = 5V

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

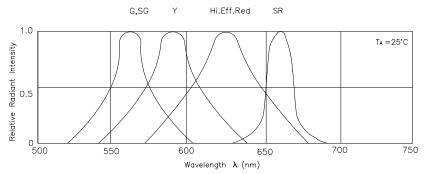
# Kingbright

#### Absolute Maximum Ratings at T<sub>A</sub>=25°C

Parameter	<b>High</b> Efficiency Red	Green	Yellow	<b>Super</b> Bright Red	Super Bright Green	Units
Power dissipation	120	120	120	120	120	mW
Forward voltage (max)	14	14	14	14	14	mA
Reverse Voltage	5	5	5	5	5	V
Operating Temperature	-40 °C To +70 °C					
Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature [1]	260 °C For 5 Seconds					

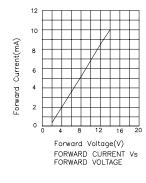
#### Note:

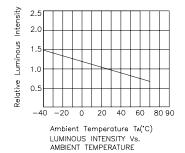
1. 4mm below package base.

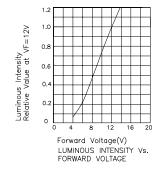


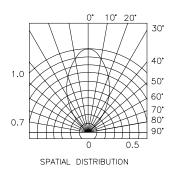
RELATIVE INTENSITY Vs. WAVELENGTH

### High Efficiency Red L934ID12V







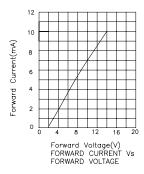


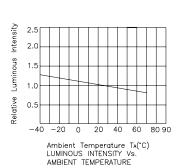
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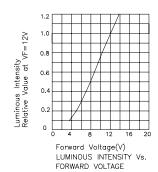
DATE: NOV/18/2001 DRAWN: Z.W.Yan PAGE: 3 OF 5

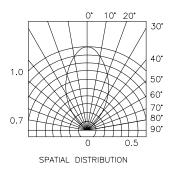
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#### Green L934GD12V

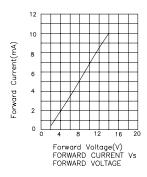


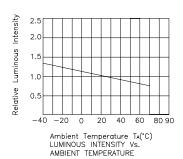


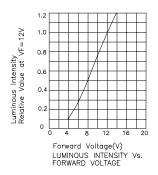


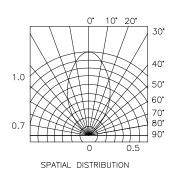


#### Yellow L934YD12V





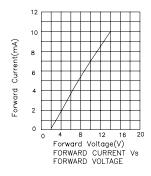


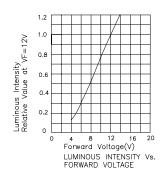


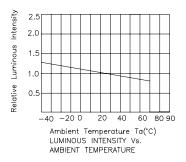
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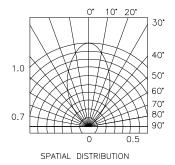
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#### Super Bright Green L934SGD12V

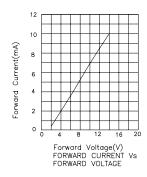


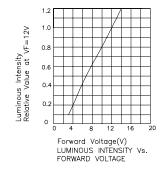


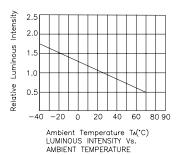


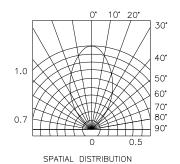


### Super Bright Red L934SRD12V









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