

## T-1 (3mm) BI-COLOR INDICATOR LAMPS

L3VEGW HIGH EFFICIENCY RED / GREEN
L3VEYW HIGH EFFICIENCY RED / YELLOW
L3VGYW GREEN / YELLOW

#### **Features**

- •UNIFORM LIGHT OUTPUT.
- •LOW POWER CONSUMPTION.
- •MILKY WHITE DIFFUSION LENS.
- •3 LEADS WITH ONE COMMON LEAD.
- •THIRD COLOR (MIXED COLOR) AVAILABLE.
- •SUPER BRIGHT VERSION AVAILABLE.
- •I.C. COMPATIBLE.
- •LONG LIFE SOLID STATE RELIABILITY.

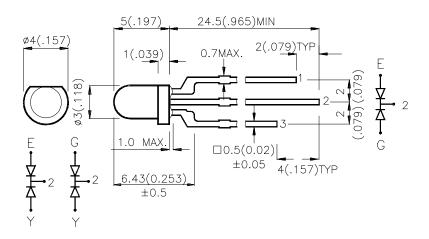
# **Description**

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

The 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.

### **Package Dimensions**



#### Notes

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25 (0.01\mbox{"})$  unless otherwise noted.
- 3. Lead spacing is measured where the lead emerge package.
- 4. Specifications are subject to change without notice.

SPEC NO: CDA0786 APPROVED: J.LU REV NO: V.1 CHECKED: DATE: NOV/17/2001 DRAWN: J.X.FU PAGE: 1 OF 4



# **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) @ 20 mA		<b>Viewing</b> Angle
			Min.	Тур.	201/2
L3VEGW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	12	40	- 60°
	GREEN (GaP)	White Diffused	12	35	
L3VEYW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	12	40	- 60°
	YELLOW (GaAsP/GaP)	WHILE DIFF OSED	8	15	
L3VGYW	GREEN (GaP)	WHITE DIFFUSED	12	35	- 60°
	YELLOW (GaAsP/GaP)	WHILE DIFF USED	8	15	

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

Symbol	Parameter	Device	Тур.	Max.	Units	its Test Conditions	
λpeak	Peak Wavelength	High Efficiency Red Green Yellow	627 565 590		nm	IF=20mA	
λD	Dominate Wavelength	High Efficiency Red Green Yellow	625 568 588		nm	IF=20mA	
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow	45 30 35		nm	IF=20mA	
С	Capacitance	High Efficiency Red Green Yellow	15 15 20		pF	VF=0V;f=1MHz	
V <sub>F</sub>	Forward Voltage	High Efficiency Red Green Yellow	2.0 2.2 2.1	2.5 2.5 2.5	V	IF=20mA	
I <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V	

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

Parameter	High Efficiency Red	Green	Yellow	Units		
Power dissipation	105	105	105	mW		
DC Forward Current	30	25	30	mA		
Peak Forward Current [1]	160	140	140	mA		
Reverse Voltage	5	5	5	V		
Operating/Storage Temperature	-40°C To +85°C					
Lead Solder Temperature [2]	260°C For 5 Seconds					

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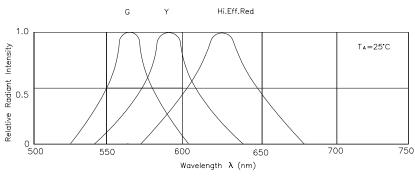
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Note: 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

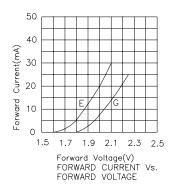
<sup>2. 4</sup>mm below package base.

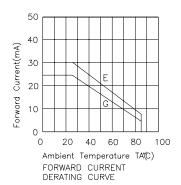


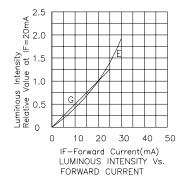


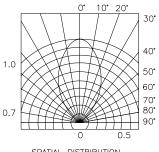
#### RELATIVE INTENSITY Vs. WAVELENGTH

# High Efficiency Red / Green L3VEGW









SPATIAL DISTRIBUTION

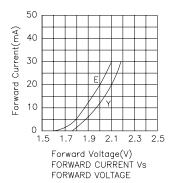
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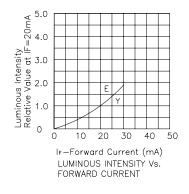
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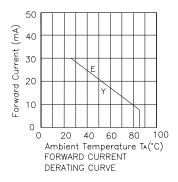
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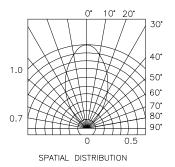
# Kingbright

## High Efficiency Red / Yellow L3VEYW

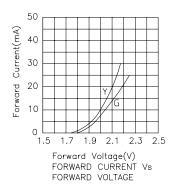


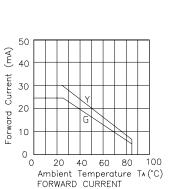


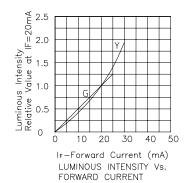


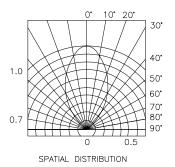


#### Green / Yellow L3VGYW









DERATING CURVE

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