

- 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.

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.

The drawing illustrates the mechanical specifications of the 245(.965)MIN package. It includes a top view showing a circular base with a diameter of $\phi 4(.157)$ and a mounting hole with a diameter of $\phi 3(.118)$. The side view shows a package height of $5(.197)$ inches and a maximum lead length of 0.7 MAX. inches. The pin configuration shows three leads: lead 1 with a width of $1(.039)$ inches, lead 2 with a width of $2(.079) \text{ TYP}$ inches, and lead 3 with a width of $2(.079) \text{ TYP}$ inches. The distance between the center of lead 1 and the center of lead 2 is $24.5(.965) \text{ MIN}$ inches. The distance between the center of lead 2 and the center of lead 3 is $4(.157) \text{ TYP}$ inches. The distance from the base to the center of lead 1 is 1.0 MAX. inches. The distance from the base to the center of lead 2 is $6.43(0.253) \pm 0.5$ inches. The distance from the base to the center of lead 3 is $6.43(0.253) \pm 0.5$ inches. The pin connection diagram shows the package connected to a circuit with pins labeled E, G, and Y.

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.

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	
L3VEGW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	12	40	60°
	GREEN (GaP)		12	35	
L3VEYW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	12	40	60°
	YELLOW (GaAsP/GaP)		8	15	
L3VGYW	GREEN (GaP)	WHITE DIFFUSED	12	35	60°
	YELLOW (GaAsP/GaP)		8	15	

Note:

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

Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

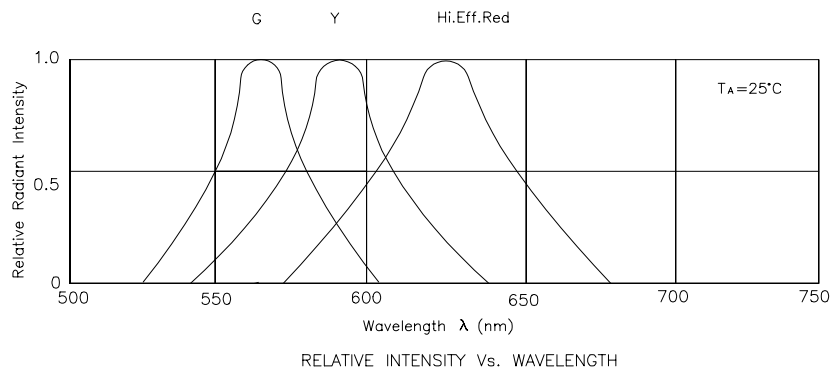
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow	627 565 590		nm	IF=20mA
λ_D	Dominate Wavelength	High Efficiency Red Green Yellow	625 568 588		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow	45 30 35		nm	IF=20mA
C	Capacitance	High Efficiency Red Green Yellow	15 15 20		pF	VF=0V;f=1MHz
V_F	Forward Voltage	High Efficiency Red Green Yellow	2.0 2.2 2.1	2.5 2.5 2.5	V	IF=20mA
I_R	Reverse Current	All		10	μA	VR = 5V

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

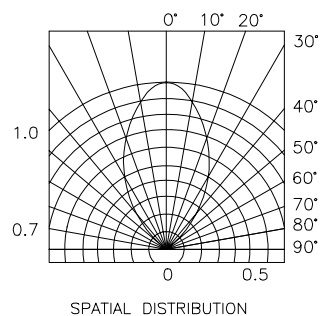
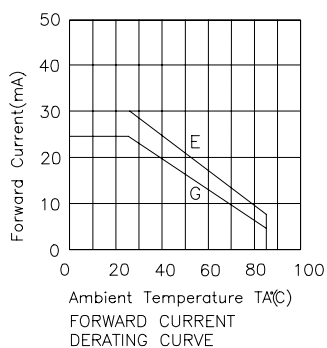
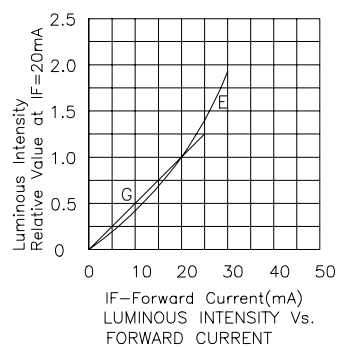
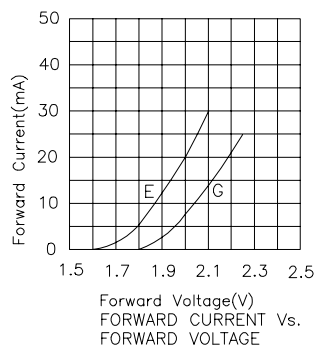
Parameter	High Efficiency Red	Green	Yellow	Units
Power dissipation	105	105	105	mW
DC Forward Current	30	25	30	mA
Peak Forward Current [1]	160	140	140	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 5 Seconds			

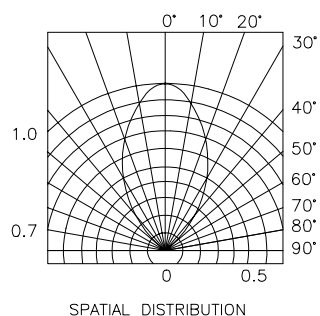
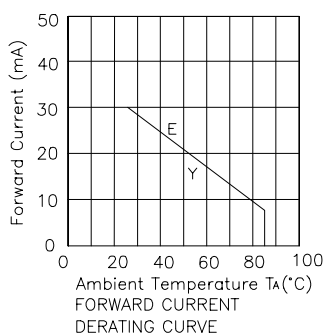
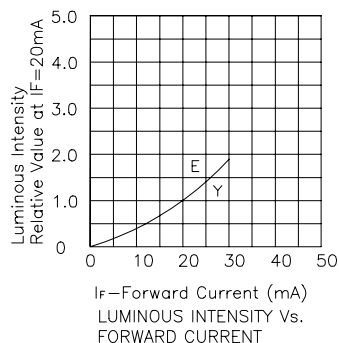
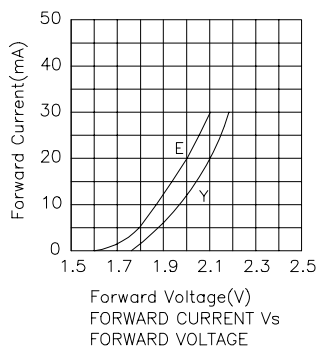
Notes:

- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



High Efficiency Red / Green L3VEGW





Green / Yellow L3VGYW

