

L816BID HIGH EFFICIENCY RED  
 L816BGD GREEN  
 L816BYD YELLOW  
 L816BSRC/B SUPER BRIGHT RED  
 L816BSRD/B SUPER BRIGHT RED

### Features

- T-1 3/4 PACKAGE
- WITH BUILT-IN BLINKING IC.
- OPERATION VOLTAGE FROM 3.5V to 14V.
- BLINKING FREQUENCY FROM 3.0Hz to 1.5Hz.

### Description

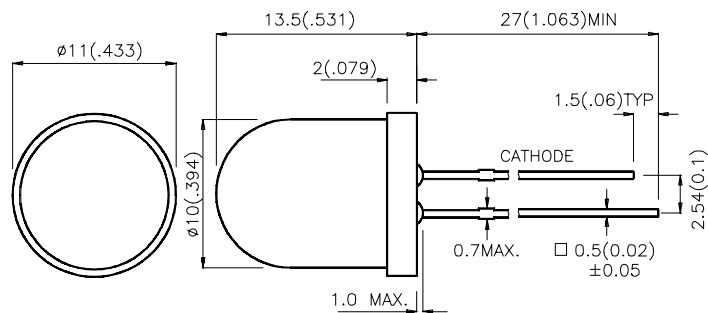
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.

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

### 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.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ VF=9V		Viewing Angle
			Min.	Typ.	2θ1/2
L816BID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	20	60	60°
L816BGD	GREEN (GaP)	GREEN DIFFUSED	20	50	60°
L816BYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	20	40	60°
L816BSRD/B	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	100	300	60°
L816BSRC/B	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	800	40°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

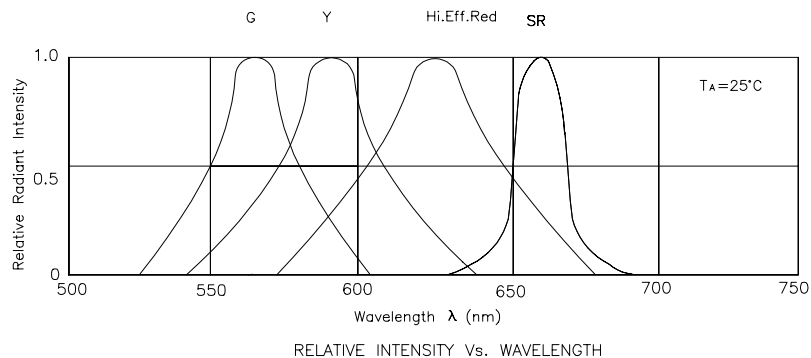
Symbol	Parameter	Device	Min.	Typ.	Units	Test Conditions
λ peak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 565 590 660		nm	
λ D	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 568 588 640		nm	
Δλ 1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	
I <sub>F</sub>	Forward Current	High Efficiency Red Green Yellow Super Bright Red	8 8 8 8	22 20 21 25	V	VF=3.5V ~ 14V
I <sub>SON</sub>	Supply Current	High Efficiency Red Green Yellow Super Bright Red		8 ~ 44 8 ~ 42 8 ~ 43 8 ~ 45	mA	VF=3.5V ~ 14V
f	Blink Frequency	All		3 ~ 1.5	Hz	F=3.5V ~ 14V

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

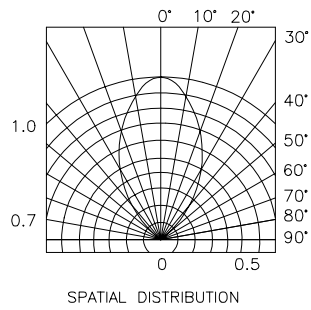
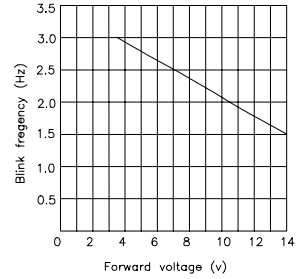
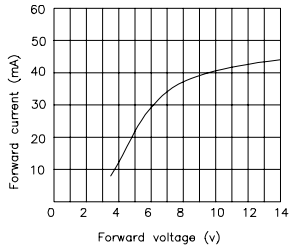
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	310	310	310	310	mW
DC Forward Current $V_F=14\text{V}$	55	55	55	55	mA
Reverse Voltage	0.5	0.5	0.5	0.5	V
Operating Temperature	-40°C To +70°C				
Storage Temperature	-50°C To +100°C				
Lead Soldering Temperature [1]	260°C For 5 Seconds				

Notes:

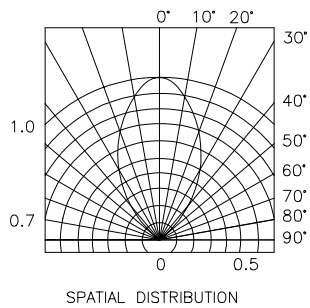
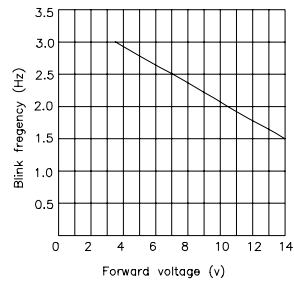
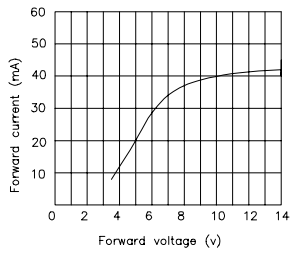
- 1/10 Duty Cycle, 0.1ms Pulse Width.



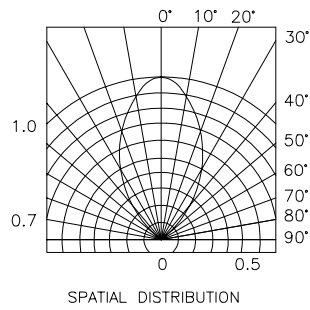
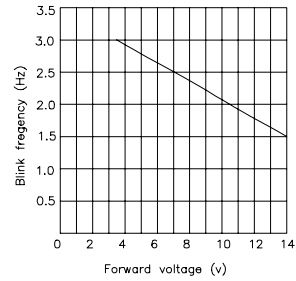
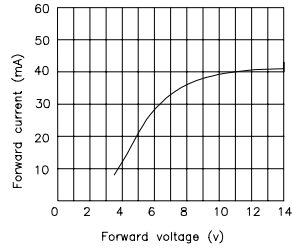
## High Efficiency Red L816BID



## Green L816BGD



## Yellow L816BYD



## Super Bright Red L816BSRD/B,L816SRC/B

