

# Kingbright®

## 10mm BLINKING LED LAMPS

L-816BI HIGH EFFICIENCY RED

L-816BG GREEN

L-816BSR SUPER BRIGHT RED

L-816BY YELLOW

### Features

- 10mm DIAMETER BIG LAMP WITH BUILT-IN BLINKING IC.
- OPERATION VOLTAGE FROM 3.5V to 13V.
- BLINKING FREQUENCY FROM 2.5Hz to 1.5Hz.

### Description

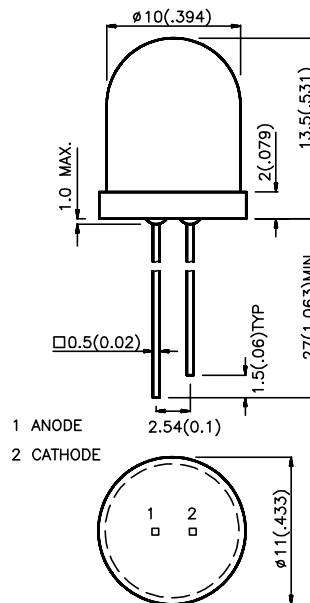
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange 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



1 ANODE  
2 CATHODE

- 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 subjected to change without notice.

### Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ VF=9V		Viewing Angle
			Min.	Max.	
L-816BID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	20	100	60°
L-816BGD	GREEN (GaP)	GREEN DIFFUSED	20	70	60°
L-816BYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	20	70	60°
L-816BSRD-B	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	100	400	60°
L-816BSRC-B	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	1000	40°

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<sub>A</sub>=25°C

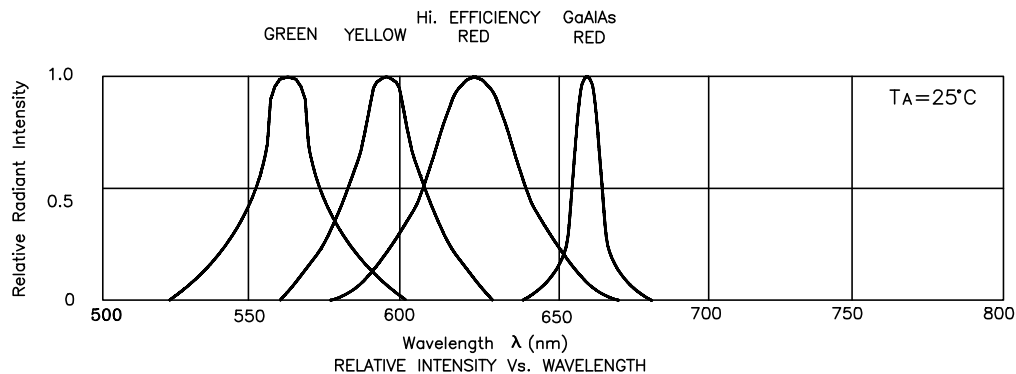
Symbol	Parameter	Device	Min.	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red		625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red		45 30 35 20		nm	IF=20mA
V <sub>F</sub>	Forward Voltage	All	3.5	9-12	13.0	V	Min. IF=6mA Typ. IF=38-56mA Max. IF=70mA
I <sub>SON</sub>	Supply Current	All		6-70		mA	
f	Blink Frequency	All		2.5-1.5		Hz	

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

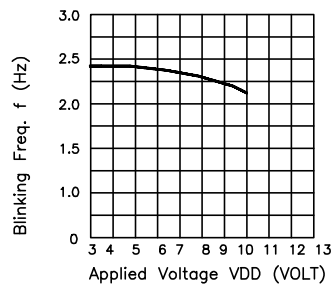
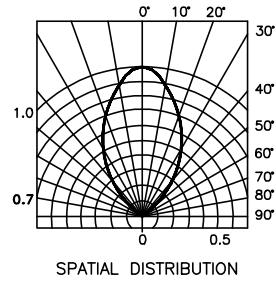
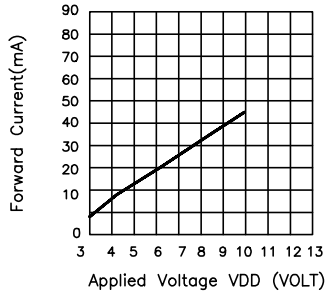
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	200	200	200	200	mW
DC Forward Current	38-56	38-56	38-56	38-56	mA
Reverse Voltage	0.5	0.5	0.5	0.5	V
Operating Temperature	-40°C To +70°C				
Storage Temperature	-50°C To +100°C				
Lead Soldering Temperature [1]	260°C For 5 Seconds				

Note:

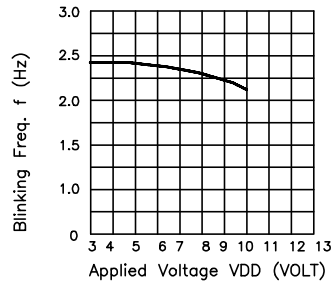
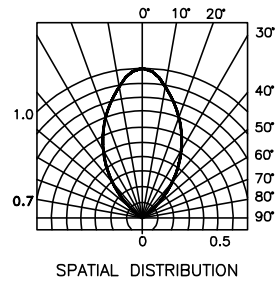
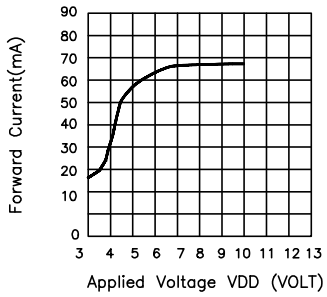
1. 4mm below package base.



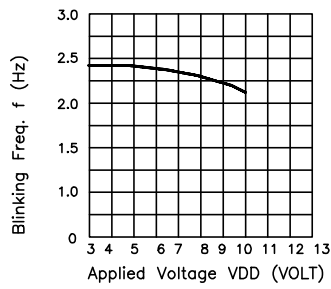
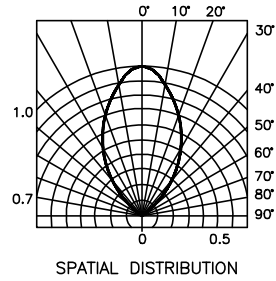
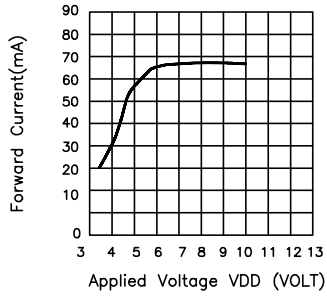
## High Efficiency Red L-816BID



## Green L-816BGD



Yellow L-816BYD



Super Bright Red L-816BSRD-B,L-816SRC-B

