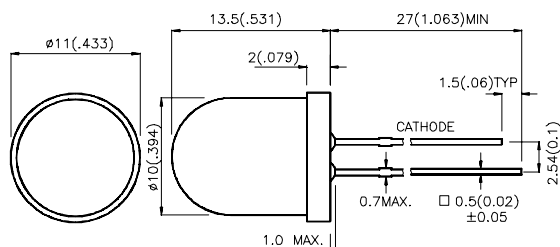


## Package Dimensions

## 10mm BLINKING LED LAMPS



E816BID	HIGH EFFICIENCY RED
E816BGD	GREEN
E816BYD	YELLOW
E816BSRx	SUPER BRIGHT RED

## Features

1. 10mm DIAMETER BIG LAMP WITH BUILT-IN BLINKING IC.
2. OPERATION VOLTAGE FROM 3.5V to 14V.
3. BLINKING FREQUENCY FROM 3.0Hz to 1.5Hz.

### 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.

## 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.

## Selection Guide

Part No.	Emitting Color +Material	$\lambda D(nm)$	Lens Type	Iv (mcd) VF=9V		Viewing Angle
				Min.	Typ.	2 $\theta$ 1/2
E816BID	GaAsP/GaP	625	RED DIFFUSED	20	60	60°
E816BGD	GaP	568	GREEN DIFFUSED	20	50	60°
E816BYD	GaAsP/GaP	588	YELLOW DIFFUSED	20	40	60°
E816BSRD/B	GaAlAs	640	RED DIFFUSED	100	300	60°
E816BSRC/B	GaAlAs	640	WATER CLEAR	500	800	40°

### Note:

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

DATA NO :EA0103

REV NO :V1

DATE :AUG/29/2001

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

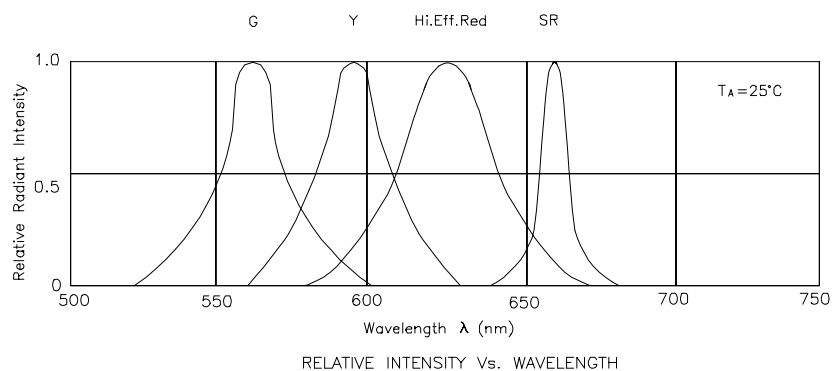
Symbol	Parameter	Device	Min	Typ	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red		627 565 590 660	nm	I <sub>F</sub> =20mA
$\lambda_D$	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red		625 568 588 640	nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red		45 30 35 20	nm	I <sub>F</sub> =20mA
I <sub>F</sub>	Forward Current	High Efficiency Red Green Yellow Super Bright Red	8 8 8 8	22 20 21 25	mA	Min: V <sub>F</sub> =3.5V Typ: V <sub>F</sub> =5V
I <sub>SON</sub>	Supply Current	High Efficiency Red Green Yellow Super Bright Red		8~44 8~42 8~43 8~45	uA	V <sub>F</sub> =3.5V~14V
f	Blink Frequency	All		3~1.5	Hz	V <sub>F</sub> =3.5V~14V

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

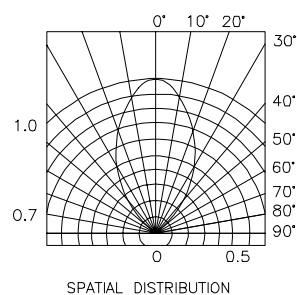
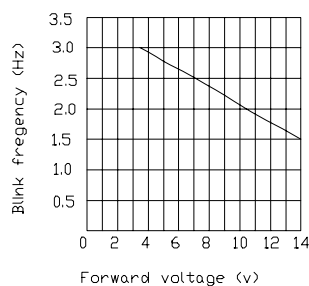
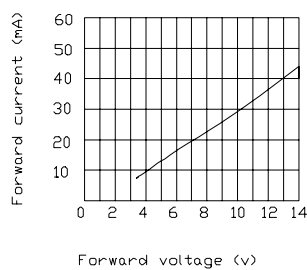
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	310	310	310	310	mW
DC Forward Current	55	55	55	55	mA
Reverse Voltage	0.5	0.5	0.5	0.5	V
Operating Temperature	-40°C To +70°C				
Storage Temperature	-50°C To +100°C				
Lead Soldering Temperature [1]	260°C For 5 Seconds				

Notes:

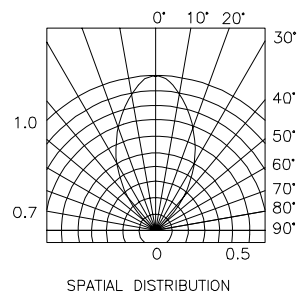
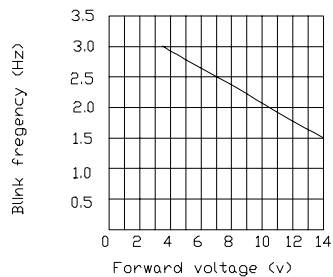
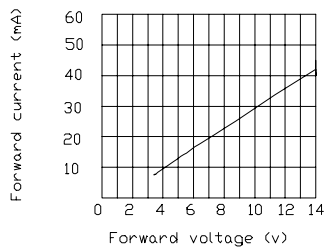
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



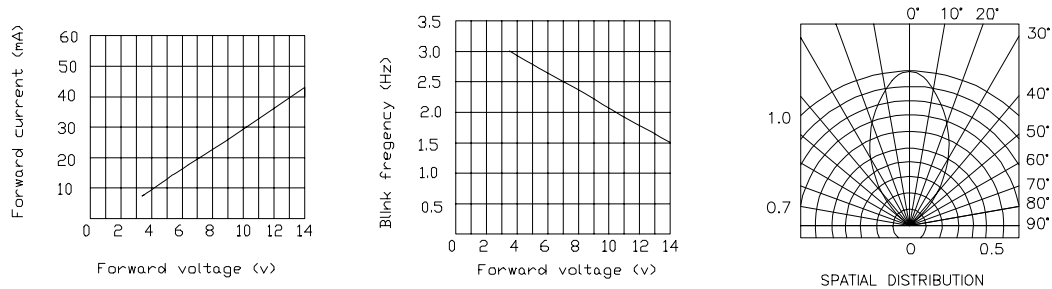
## High Efficiency Red E816BID



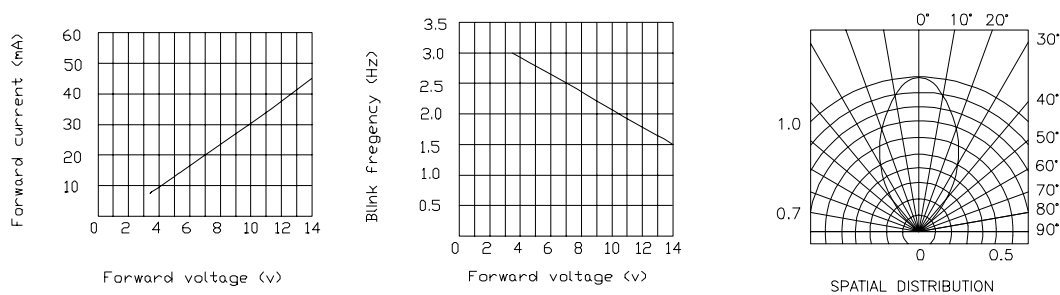
## Green E816BGD



## Yellow E816BYD



## Super Bright Red E816BSRD/B



## Super Bright Red E816SRC/B

