

# Kingbright®

## T-1 3/4 (5mm) BLINKING LED LAMPS

L-56BH BRIGHT RED	L-56BG GREEN
L-56BI HIGH EFFICIENCY RED	L-56BY YELLOW
L-56BSR SUPER BRIGHT RED	

### Features

- T-13/4 PACKAGE.
- WITH BUILT-IN BLINKING IC.
- OPERATION VOLTAGE FROM 3.5V TO 13V.
- BLINKING FREQUENCY FROM 2.5Hz TO 1.5Hz.

### Description

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

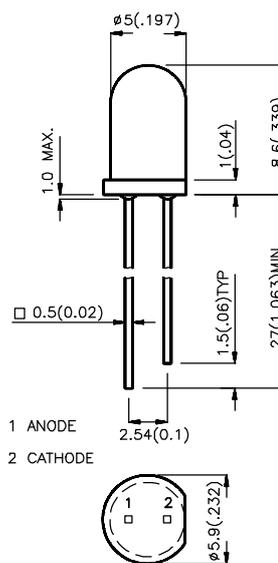
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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



- 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 2 $\theta$ 1/2
			Min.	Max.	
L-56BHD	BRIGHT RED (GaP)	RED DIFFUSED	2	8	60°
L-56BID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	20	80	60°
L-56BGD	GREEN (GaP)	GREEN DIFFUSED	5	32	60°
L-56BYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	32	60°
L-56BSRD-B	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	100	300	60°
L-56BSRC-E	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	400	900	30°

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**

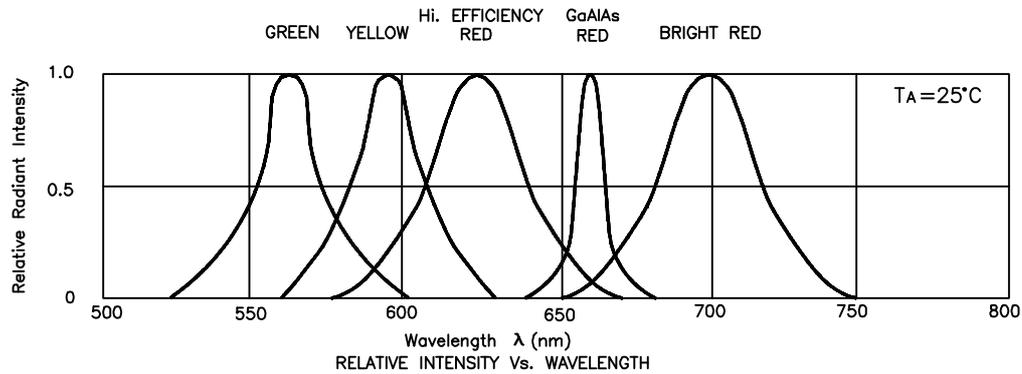
Symbol	Parameter	Device	Min.	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Bright Red High Efficiency Red Green Yellow Super Bright Red		700 625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Green Yellow Super Bright Red		45 45 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**

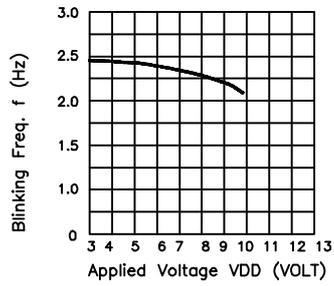
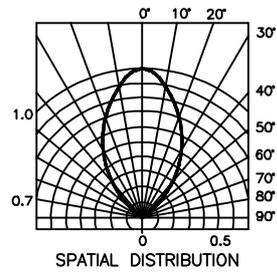
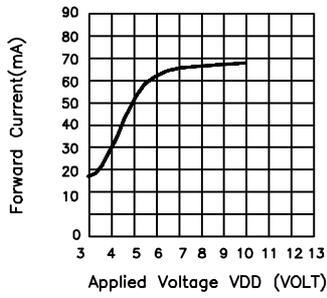
Parameter	Bright Red	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	200	200	200	200	200	mW
DC Forward Current	38-56	38-56	38-56	38-56	38-56	mA
Reverse Voltage	0.5	0.5	0.5	0.5	0.5	V
Operating Temperature	-40°C To +70°C					
Storage Temperature	-50°C To +100°C					
Lead Soldering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

Note:

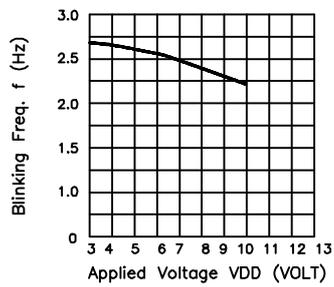
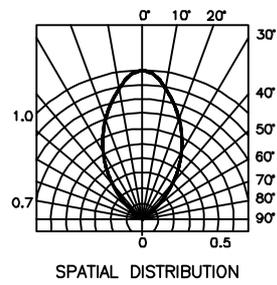
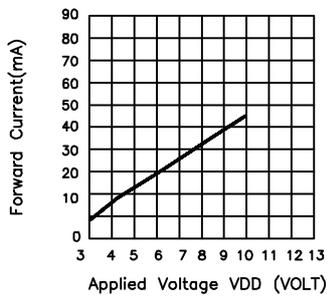
1. 4mm below package base.



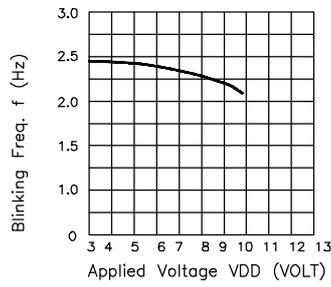
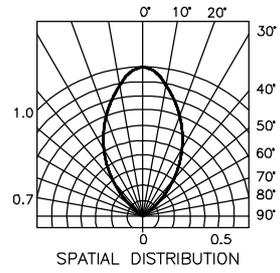
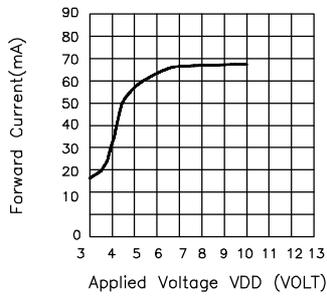
**Bright Red L-56BHD**



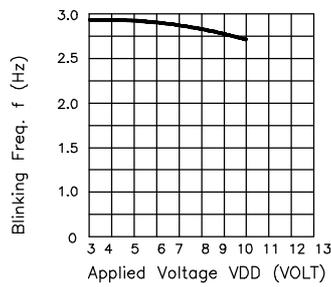
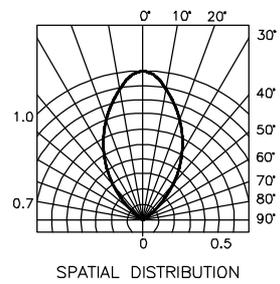
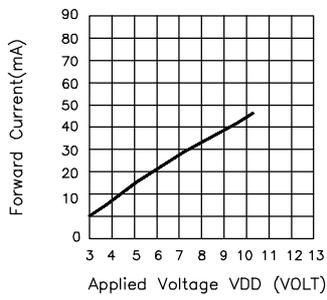
**High Efficiency Red L-56BID**



**Green L-56BGD**



**Yellow L-56BYD**



**Super Bright Red L-56BSRD-B / L-56BSRC-E**

