

# Kingbright®

## 4.8mm RIGHT ANGLE LED INDICATORS

L-73CB/1	L-73CB/4
L-73CB/2	L-73HB/1
L-73CB/3	L-73JB/1

### Features

- PRE-TRIMMED LEADS FOR PC MOUNTING.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY - LIFE MEASURED IN YEARS.

### Description

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

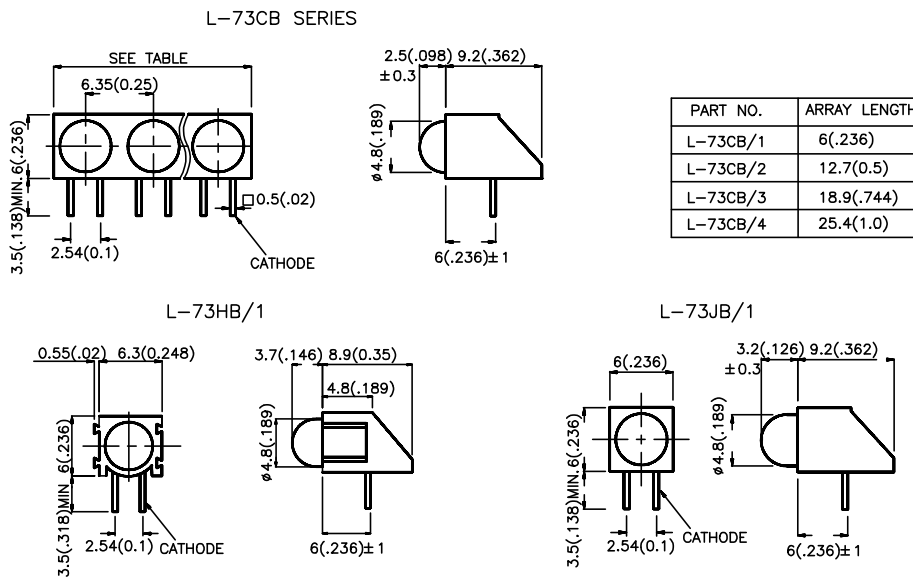
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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) @ 10 mA		Viewing Angle
			Min.	Max.	$2\theta_{1/2}$
L-73CB/1RDA L-73CB/2RDA L-73CB/3RDA L-73CB/4RDA L-73HB/1RDA L-73JB/1RDA	RED (GaAsP)	RED DIFFUSED	0.8	2	60°
L-73CB/1IDA L-73CB/1IDA L-73CB/1IDA L-73CB/1IDA L-73HB/1IDA L-73JB/1IDA	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	32	60°
L-73CB/1GDA L-73CB/2GDA L-73CB/3GDA L-73CB/4GDA L-73HB/1GDA L-73JB/1GDA	GREEN (GaP)	GREEN DIFFUSED	5	32	60°
L-73CB/1YDA L-73CB/2YDA L-73CB/3YDA L-73CB/4YDA L-73HB/1YDA L-73JB/1YDA	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	32	60°
L-73CB/1SRDA L-73CB/1SRDA L-73CB/3RDA L-73CB/4RDA L-73HB/1RDA L-73JB/2RDA	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*300	60°

Notes:

1.  $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. \*Luminous intensity with asterisk is measured at 20 mA.

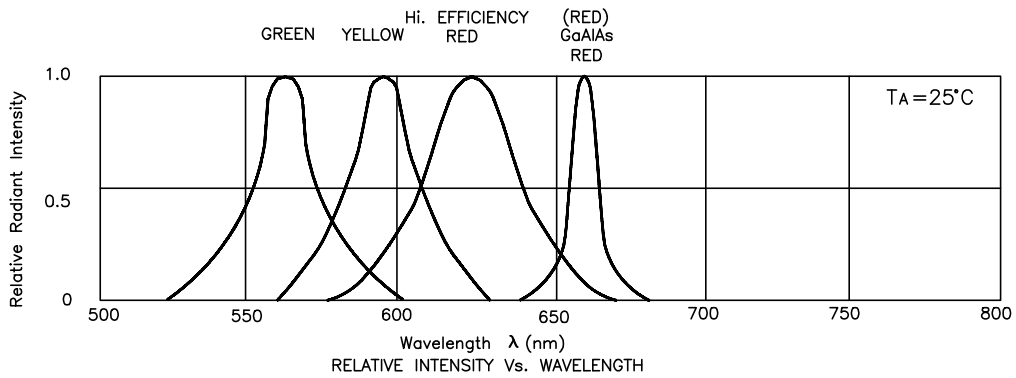
## Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	Red High Efficiency Red Green Yellow Super Bright Red	660 625 565 590 660		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Red High Efficiency Red Green Yellow Super Bright Red	20 45 30 35 20		nm	IF=20mA
C	Capacitance	Red High Efficiency Red Green Yellow Super Bright Red	40 12 45 10 95		pF	VF=0V;f=1MHz
$V_F$	Forward Voltage	Red High Efficiency Red Green Yellow Super Bright Red	1.7 2.0 2.2 2.1 1.85	2.1 2.5 2.5 2.5 2.5	V	IF=20mA
$I_R$	Reverse Current	All	10		uA	VR = 5V

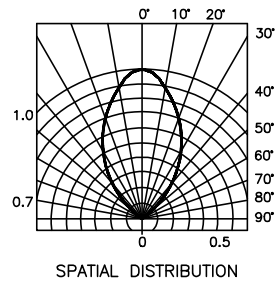
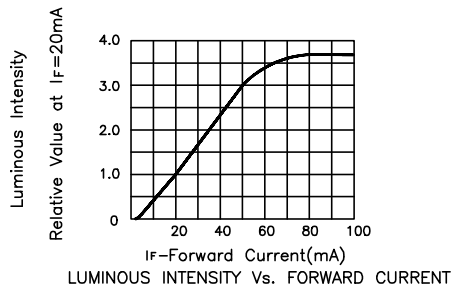
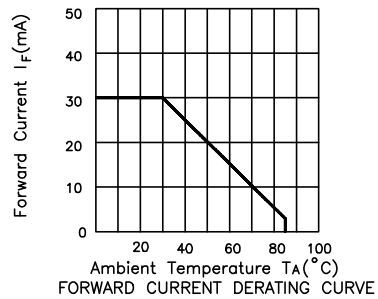
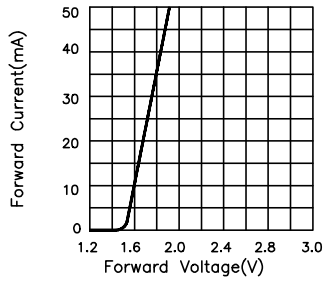
### Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Red	High Efficiency Red	Green	Yellow	Super Bright Red	Unit
Power dissipation	120	105	105	105	100	mW
DC Forward Current	30	30	25	30	30	mA
Peak Forward Current [1]	150	150	150	150	150	mA
Reverse Voltage	5	5	5	5	5	V
Operation/Storage Temperature	-40 °C To +85 °C					
Lead Solder Temperature [2]	260 °C For 5 Seconds					

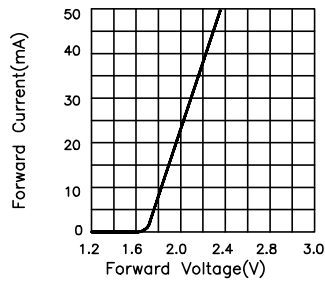
Notes:  
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.  
 2. 4mm below package base.



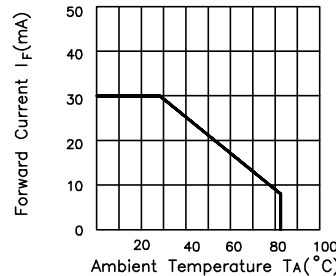
### Red



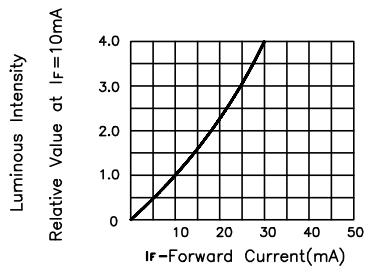
## High Efficiency Red



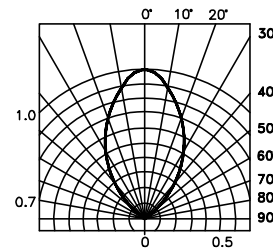
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

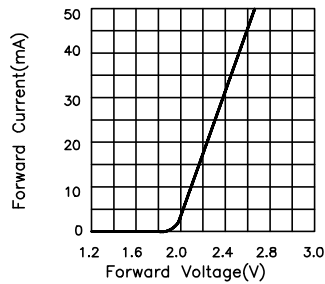


LUMINOUS INTENSITY Vs. FORWARD CURRENT

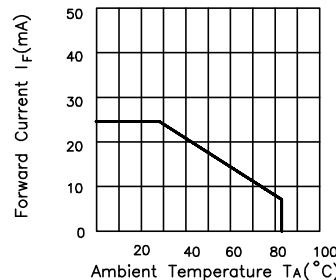


SPATIAL DISTRIBUTION

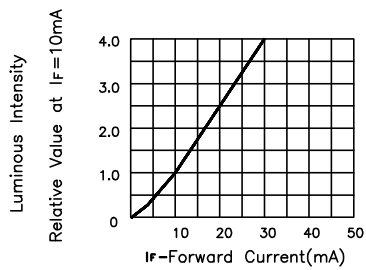
## Green



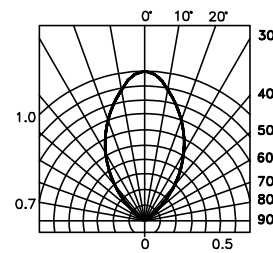
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

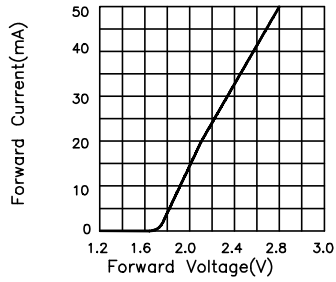


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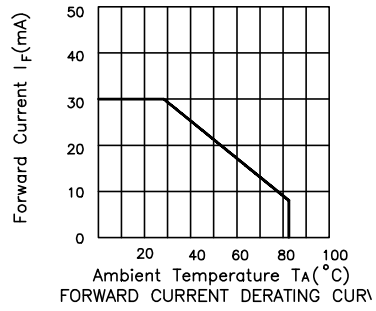


SPATIAL DISTRIBUTION

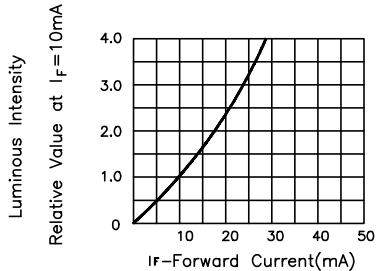
## Yellow



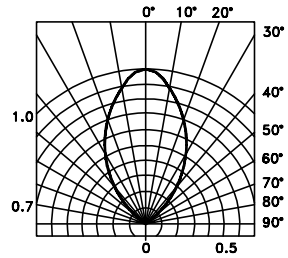
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURV

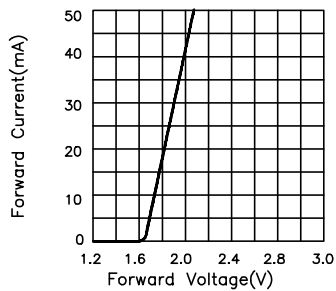


LUMINOUS INTENSITY Vs. FORWARD CURRENT

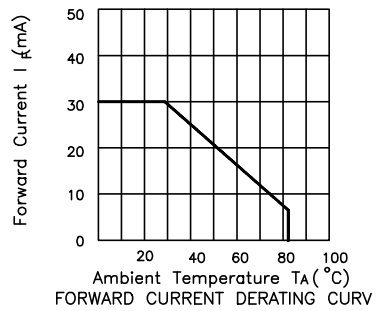


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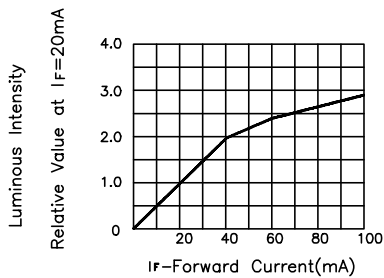
## Super Bright Red



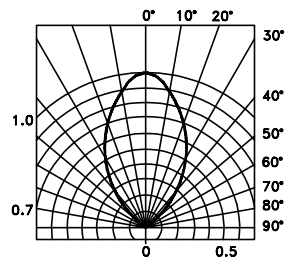
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURV



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION