

Kingbright®

5.6x4.9mm TRIANGULAR LED LAMPS

L-323H BRIGHT RED

L-323G GREEN

L-323I HIGH EFFICIENCY RED

L-323Y YELLOW

L-323E ORANGE

Features

- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- SUITABLE FOR DIRECTION INDICATOR.
- I.C. COMPATIBLE.

Description

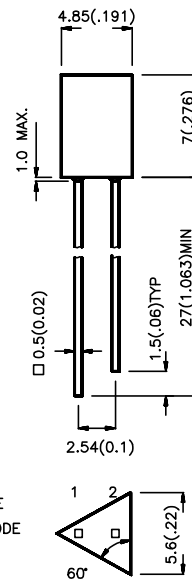
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

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

The High Efficiency Red and Orange 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.

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) @ 10 mA		Viewing Angle 2θ1/2
			Min.	Max.	
L-323HD	BRIGHT RED (GaP)	RED DIFFUSED	0.5	0.8	100°
L-323ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	5	12.5	100°
L-323ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	5	12.5	100°
L-323GD	GREEN (GaP)	GREEN DIFFUSED	2	8	100°
L-323YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	2	5	100°

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

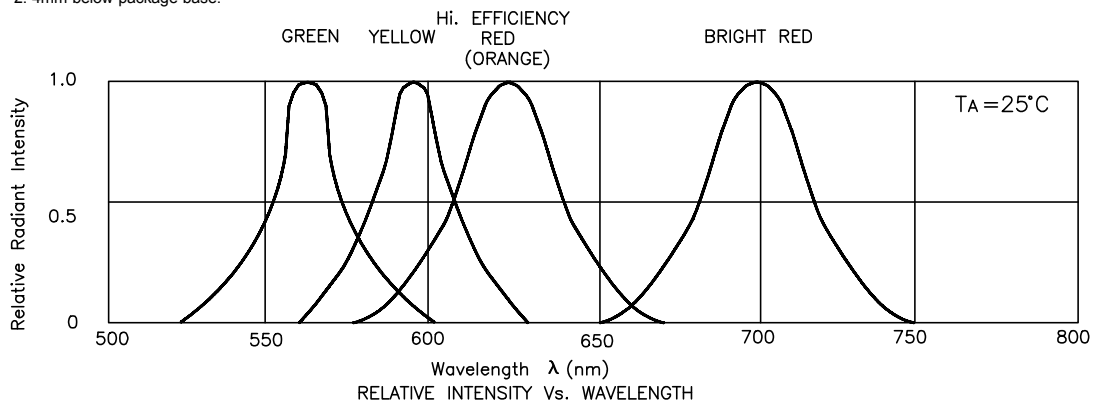
Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Orange Green Yellow	700 625 625 565 590		nm	$I_F=20\text{mA}$
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Orange Green Yellow	45 45 45 30 35		nm	$I_F=20\text{mA}$
C	Capacitance	Bright Red High Efficiency Red Orange Green Yellow	40 12 12 45 10		pF	$V_F=0\text{V}; f=1\text{MHz}$
V_F	Forward Voltage	Bright Red High Efficiency Red Orange Green Yellow	2.0 2.0 2.0 2.2 2.1	2.5 2.5 2.5 2.5 2.5	V	$I_F=20\text{mA}$
I_R	Reverse Current	All	10		μA	$V_R = 5\text{V}$

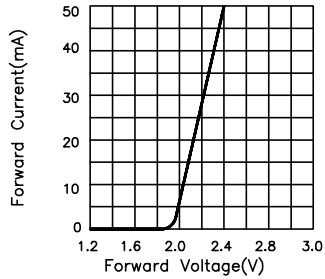
Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Bright Red	High Efficiency Red	Orange	Green	Yellow	Units
Power dissipation	120	105	105	105	105	mW
DC Forward Current	25	30	30	25	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 $+85^\circ\text{C}$					
Lead Solder Temperature [2]	260 $^\circ\text{C}$ For 5 Seconds					

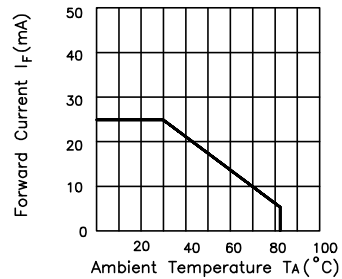
Notes:
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 4mm below package base.



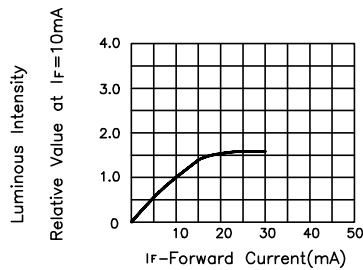
Bright Red L-323HD



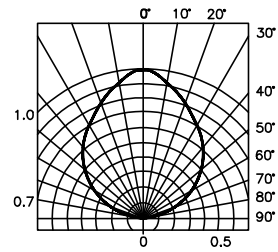
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

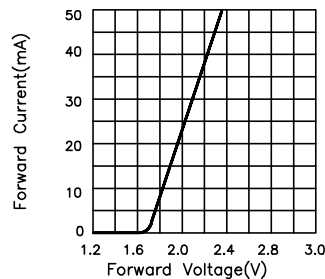


LUMINOUS INTENSITY Vs. FORWARD CURRENT

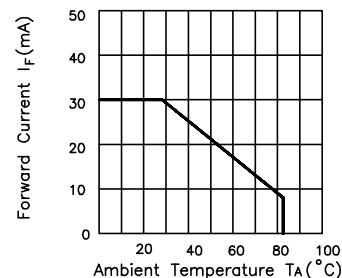


SPATIAL DISTRIBUTION

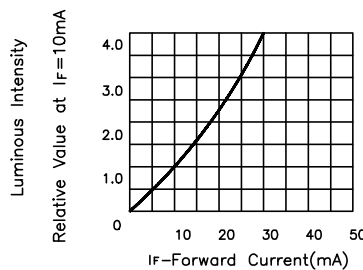
High Efficiency Red L-323ID Orange L-323ED



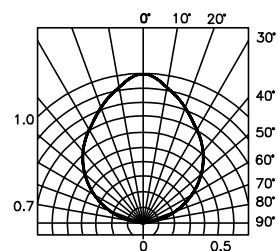
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

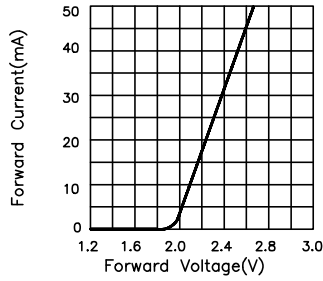


LUMINOUS INTENSITY Vs. FORWARD CURRENT

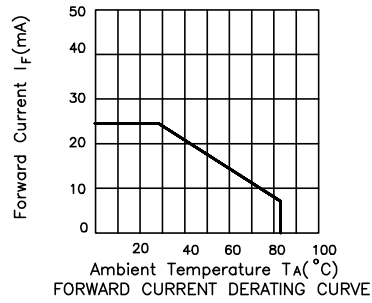


SPATIAL DISTRIBUTION

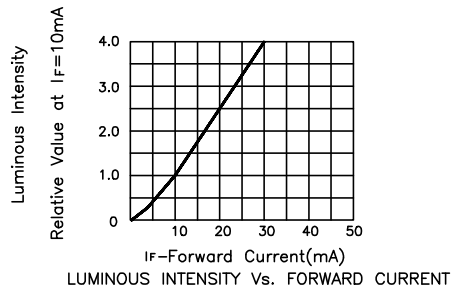
Green L-323GD



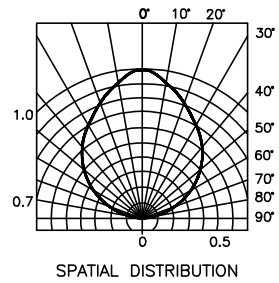
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

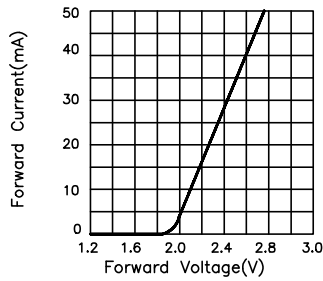


LUMINOUS INTENSITY Vs. FORWARD CURRENT

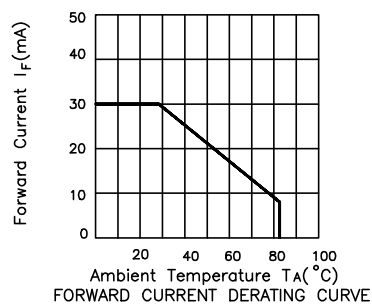


SPATIAL DISTRIBUTION

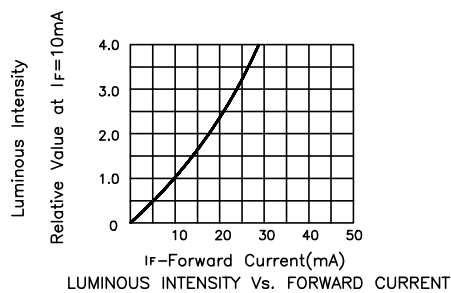
Yellow L-323YD



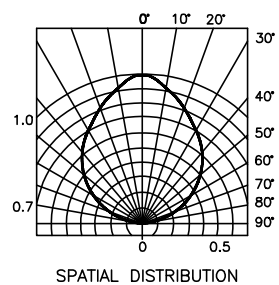
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION