

Rectangular LEDs

Order code	Manufacturer code	Description
56-0785	L-157EGW	7 X 2.5MM RECT. BI-COLOUR LED

Rectangular LEDs	Page 1 of 5
The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

Kingbright®

2.3mm x7mm BI-COLOR INDICATOR LAMPS

L-157EG HIGH EFFICIENCY RED / GREEN
 L-157EY HIGH EFFICIENCY RED / YELLOW
 L-157GY GREEN / YELLOW

Features

- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- MILKY WHITE DIFFUSION LENS.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.

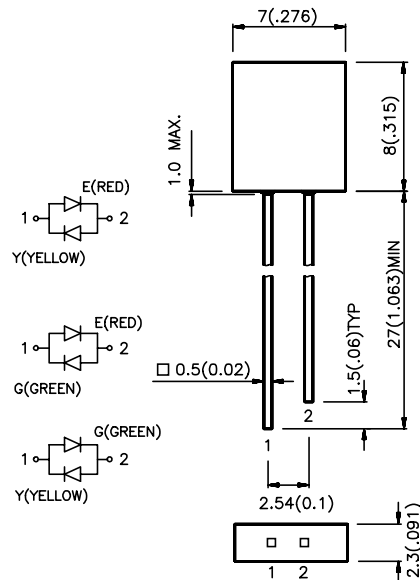
Description

The Green and Super Bright 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 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) @ 20 mA		Viewing Angle 2 θ 1/2
			Min.	Max.	
L-157EGW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	20.0	50.0	110°
	GREEN (GaP)		5.0	12.5	
L-157EYW	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	5.0	12.5	
	YELLOW (GaAsP/GaP)		5.0	12.5	
L-157GYW	GREEN (GaP)	WHITE DIFFUSED	5.0	12.5	
	YELLOW (GaAsP/GaP)		5.0	12.5	

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

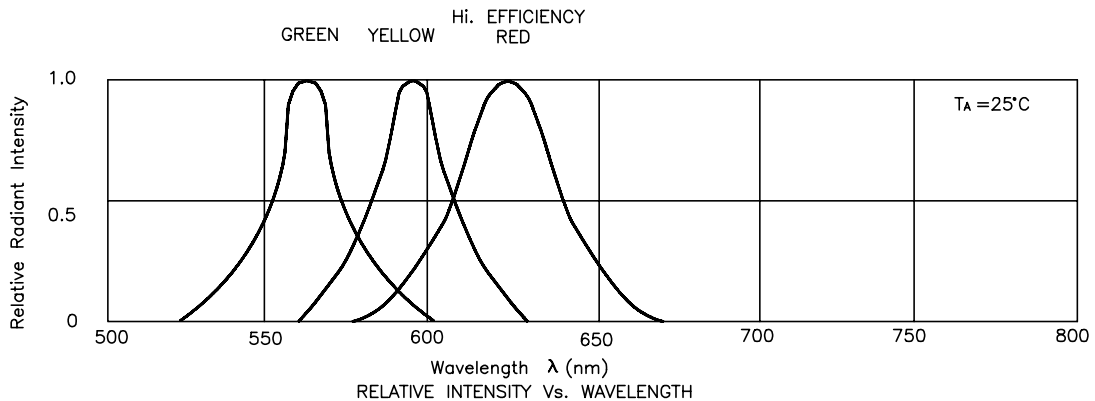
Electrical / Optical Characteristics at T_A=25°C

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

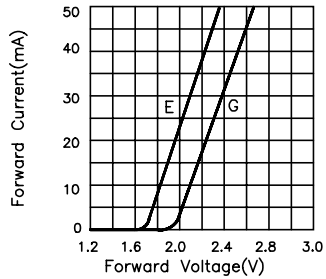
Absolute Maximum Ratings at T_A=25°C

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

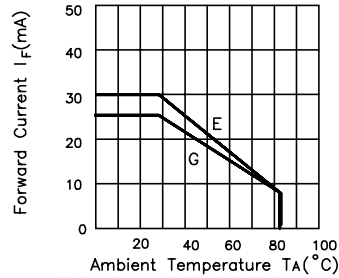
Notes:
 1. $\tau \leq 10\mu s$.
 2. 4mm below package base.



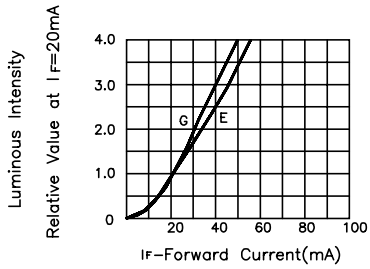
High Efficiency Red / Green L-157EGW



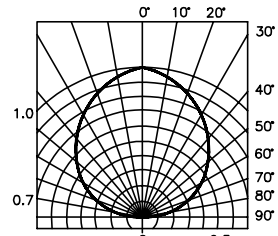
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

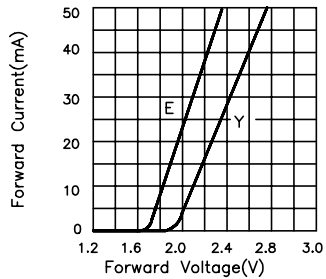


LUMINOUS INTENSITY Vs. FORWARD CURRENT

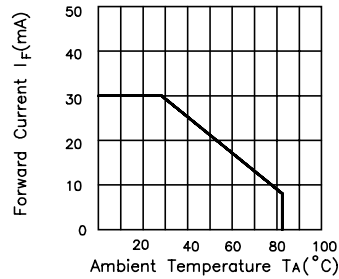


SPATIAL DISTRIBUTION

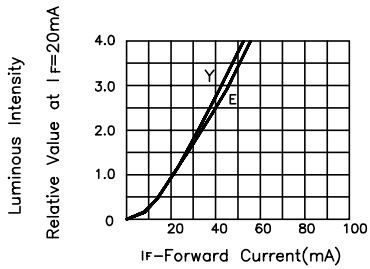
High Efficiency Red / Yellow L-157EYW



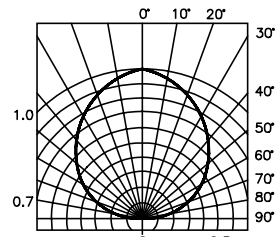
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

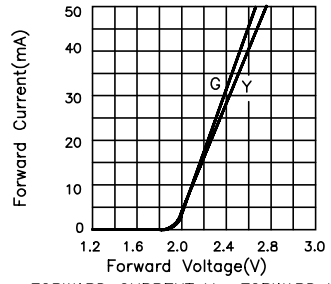


LUMINOUS INTENSITY Vs. FORWARD CURRENT

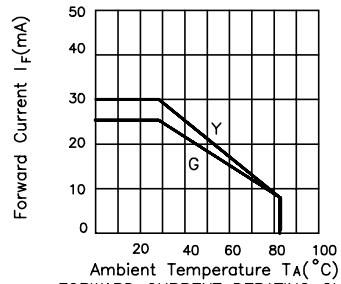


SPATIAL DISTRIBUTION

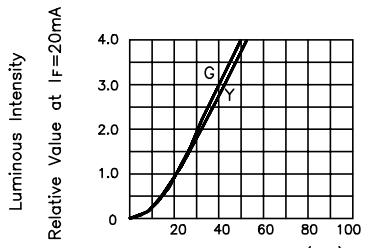
Green / Yellow L-157GYW



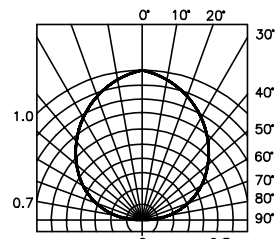
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION