

L-1503EB/2ID	HIGH EFFICIENCY RED
L-1503EB/2SRD	SUPER BRIGHT RED
L-1503EB/2YD	YELLOW
L-1503EB/2GD	GREEN

Features

- PRE-TRIMMED LEADS FOR PC BOARD MOUNTING.
- STACKABLE UNITS.
- COLORS CAN BE MIXED IN A SINGLE HOUSING.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY - LIFE MEASURED IN YEARS.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.

Description

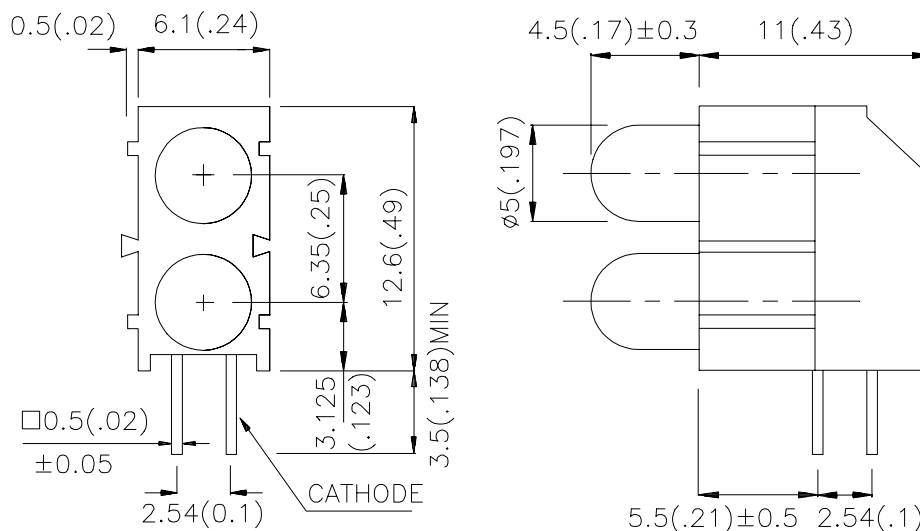
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

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

The Green source color devices are made with Gallium Phosphide GreenLight 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 subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10mA*20mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-1503EB/2ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	30	60°
L-1503EB/2SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*110	*400	60°
L-1503EB/2YD	YELLOW(GaAsP/GaP)	YELLOW DIFFUSED	5	20	60°
L-1503EB/2GD	GREEN (GaP)	GREEN DIFFUSED	5	20	60°

Notes:

1. θ1/2 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 20mA.

Electrical / Optical Characteristics at T_A=25°C

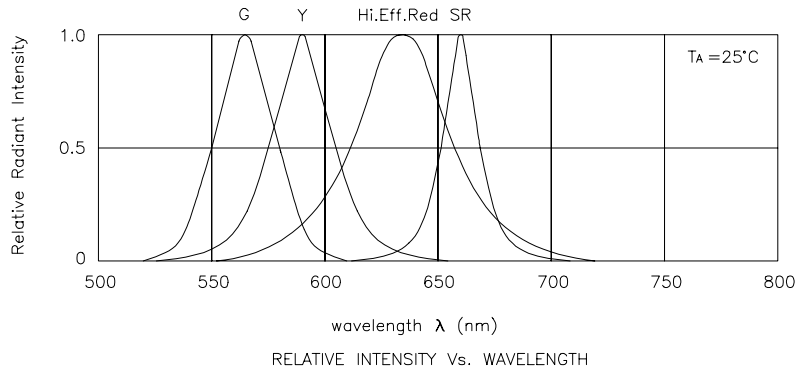
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I _F =20mA
λ _D	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I _F =20mA
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	High Efficiency Red Super Bright Red Yellow Green	2.0 1.85 2.1 2.2	2.5 2.5 2.5 2.5	V	I _F =20mA
I _R	Reverse Current	All		10	μA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

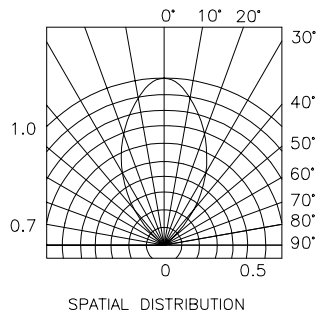
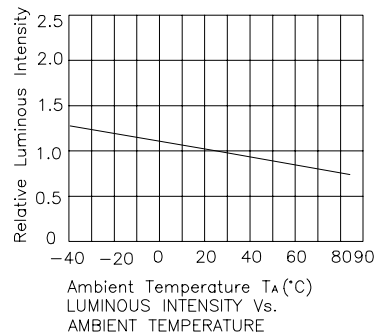
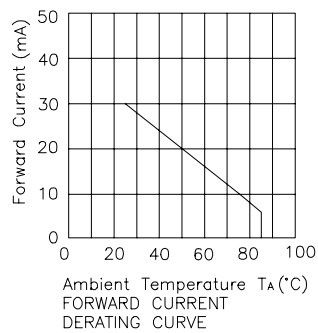
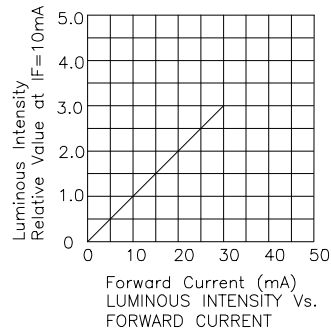
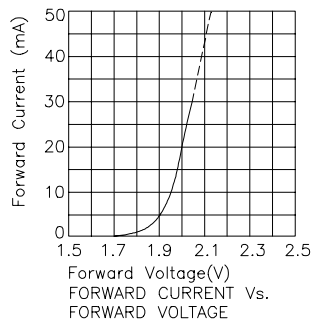
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

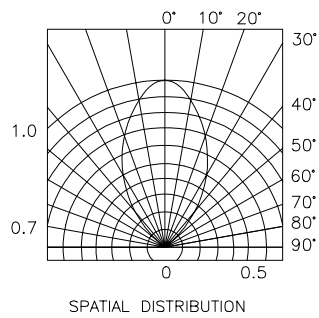
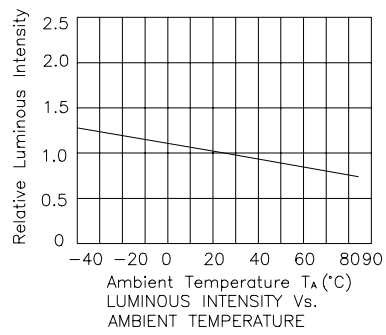
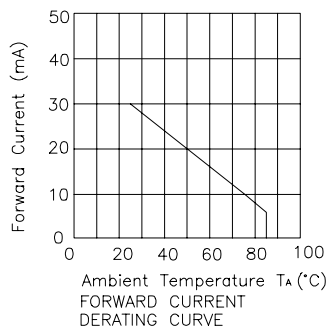
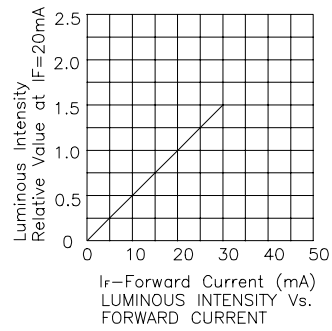
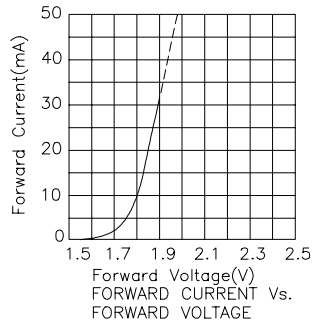
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.



High Efficiency Red L-1503EB/2ID

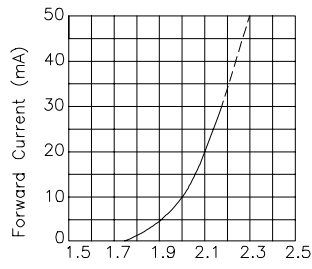


Super Bright Red L-1503EB/2SRD

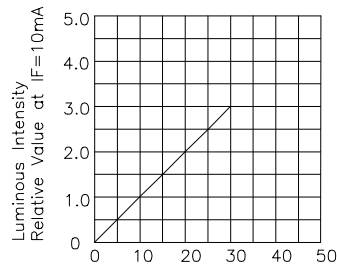


Yellow

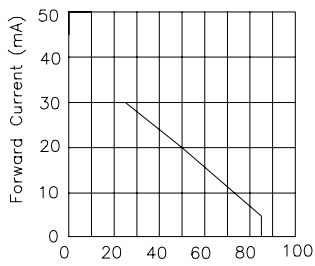
L-1503EB/2YD



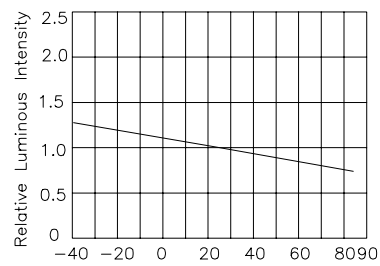
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



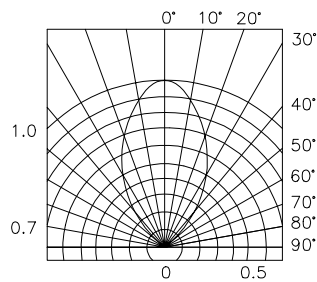
Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Green

L-1503EB/2GD

