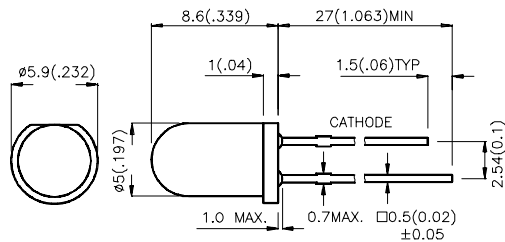


Package Dimensions



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.

T-1 3/4 (5mm) LOW CURRENT LED LAMPS

E53LID	HIGH EFFICIENCY RED
E53LGD	GREEN
E53LYD	YELLOW
E53LSRD	SUPER BRIGHT RED

Features

1. MINIMUM LUMINOUS INTENSITY SPECIFIED AT 2 mA.
2. HIGH LIGHT OUTPUT AT LOW CURRENTS.
3. LOW POWER CONSUMPTION.
4. LOW CURRENT REQUIREMENTS.
5. WIDE VIEWING ANGLE.
6. I.C. COMPATIBLE.
7. RELIABLE AND RUGGED.

Description

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

The Green source color devices are made with Gallium Phosphide Green 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.

Selection Guide

Part No.	Emitting Color +Material	λD (nm)	Lens Type	Iv (mcd) 20mA		Viewing Angle
				Min.	Typ.	2 θ 1/2
E53LID	GaAsP/GaP	625	RED DIFFUSED	0.8	5	60°
E53LGD	GaP	568	GREEN DIFFUSED	0.8	2	60°
E53LYD	GaAsP/GaP	588	YELLOW DIFFUSED	0.8	2	60°
E53LSRD	GaAlAs	640	RED DIFFUSED	8	20	60°

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 $T_A=25^\circ\text{C}$

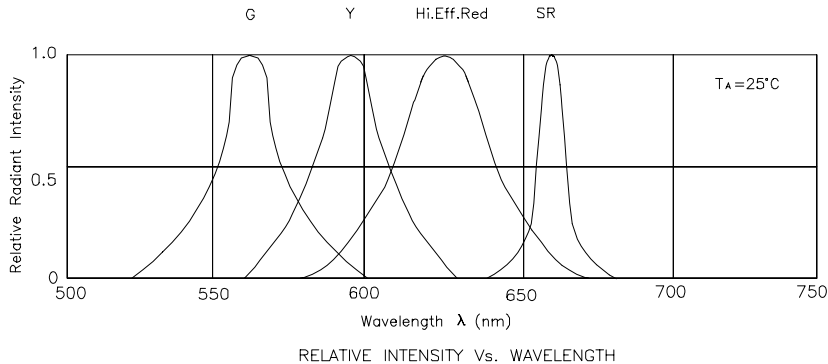
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 565 590 660		nm	$I_F=20\text{mA}$
λ_D	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 568 588 640		nm	$I_F=20\text{mA}$
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red	45 30 35 20		nm	$I_F=20\text{mA}$
C	Capacitance	High Efficiency Red Green Yellow Super Bright Red	15 15 20 45		pF	$V_F=0\text{V}; f=1\text{MHz}$
V_F	Forward Voltage	High Efficiency Red Green Yellow Super Bright Red	2.0 2.0 2.1 1.85	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 $T_A=25^\circ\text{C}$

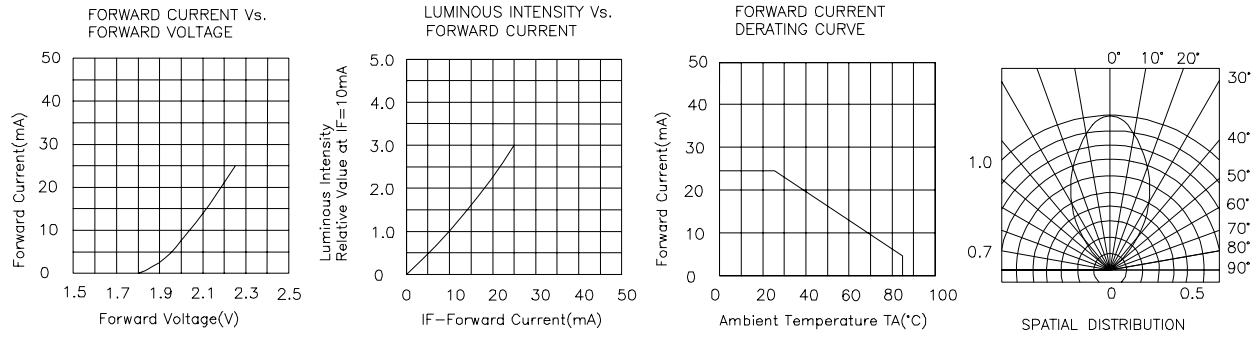
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	105	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	160	140	140	155	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Soldering Temperature [2]	260°C For 5 Seconds				

Notes:

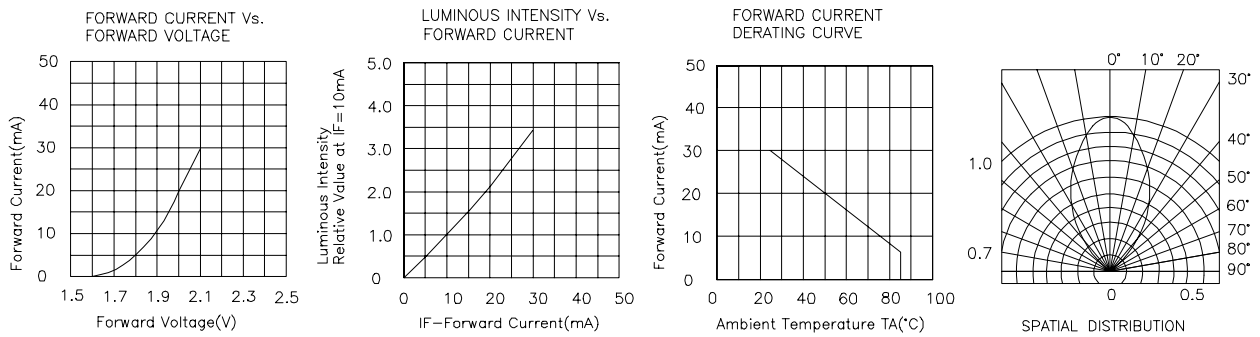
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



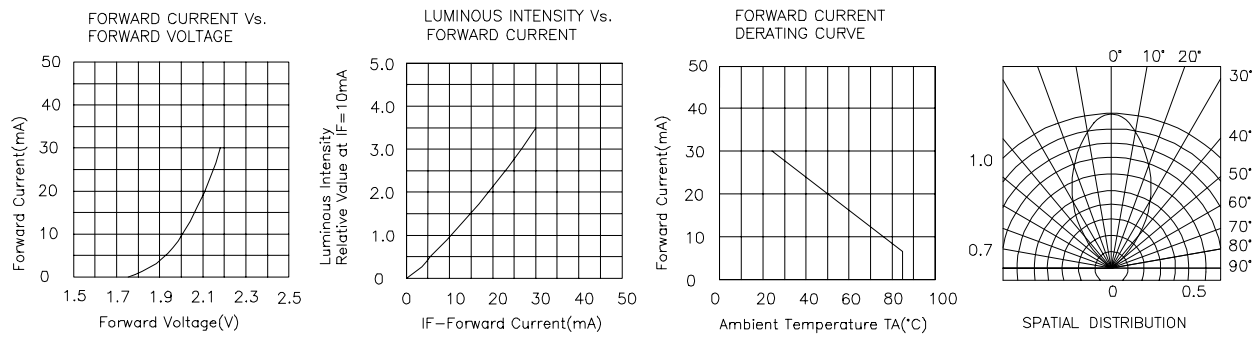
Green E53LGD



High Efficiency Red E53LID



Yellow E53LYD



Super Bright Red E53LSRD

