

Kingbright®

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

L-53I-5V/-12V HIGH EFFICIENCY RED

L-53G-5V/-12V GREEN

L-53Y-5V/-12V YELLOW

L-53SR-5V/-12V SUPER BRIGHT RED

Features

- 5 VOLT/12 VOLT SERIES IN T-1 3/4 PACKAGES.
- INTEGRAL CURRENT LIMITING RESISTOR.
- NO EXTERNAL CURRENT LIMITER REQUIRED WITH 5 VOLTS/12 VOLT SUPPLY.
- COST EFFECTIVE - SAVE SPACE AND RESISTOR COST.
- WIDE VIEWING ANGLE.
- AVAILABLE IN ALL COLORS.

Description

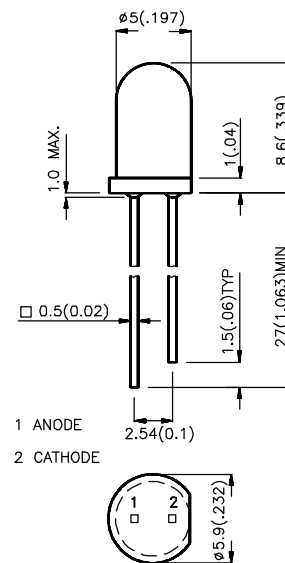
The Green and Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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

The 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) 5V / *12V		Viewing Angle 2 θ 1/2
			Min.	Max.	
L-53ID-5V	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	12.5	80	60°
L-53ID-12V			*12.5	*80	60°
L-53GD-5V	GREEN (GaP)	GREEN DIFFUSED	5	32	60°
L-53GD-12V			*5	*32	60°
L-53YD-5V	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	32	60°
L-53YD-12V			*5	*32	60°
L-53SRD-5V	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	100	500	60°
L-53SRD-12V			*100	*500	60°
L-53SGD-5V	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	12.5	32	60°
L-53SGD-12V			*12.5	*32	60°

Note:

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

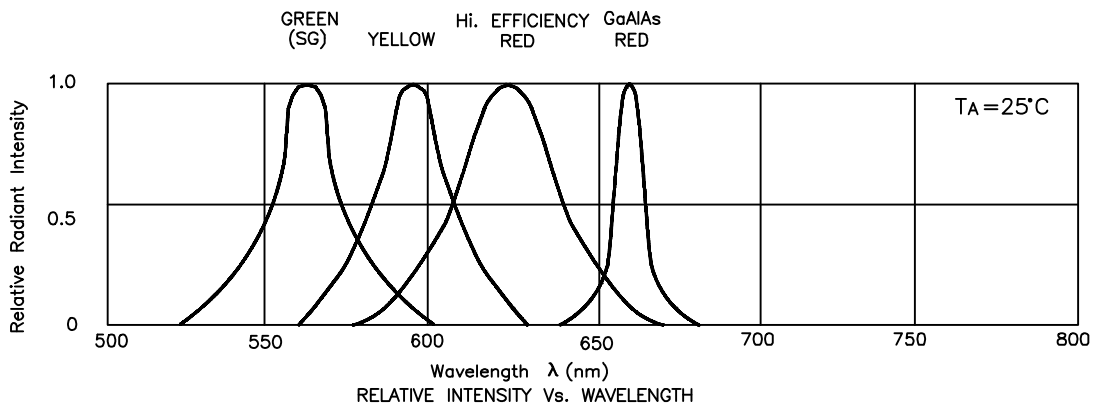
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 565 590 660 565	nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30	nm	IF=20mA
I _F	Forward Current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	12 12 12 13 12	mA	VF=5V
I _F	Forward Current	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	11 11 12 10 11	mA	VF=12V
I _R	Reverse Current	All	10	uA	VR = 5V

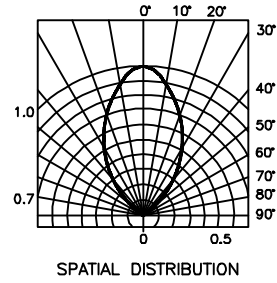
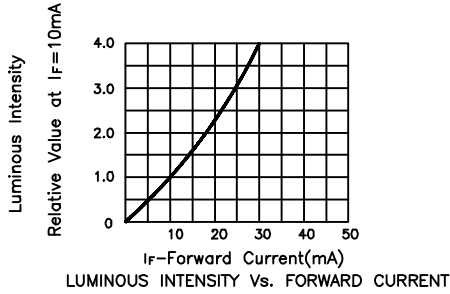
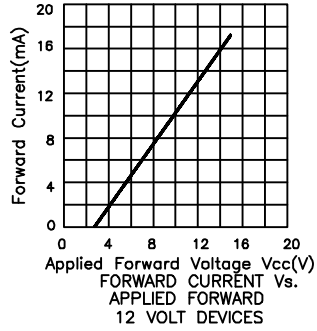
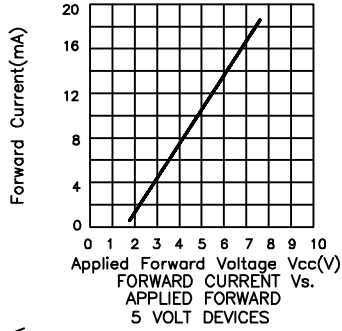
Absolute Maximum Ratings at T_A=25°C

Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	310	310	310	310	310	mW
Peak Forward Current [1]	150	150	150	200	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					

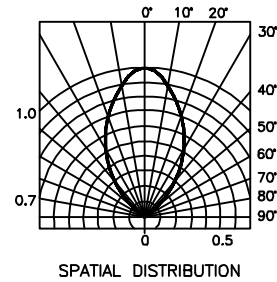
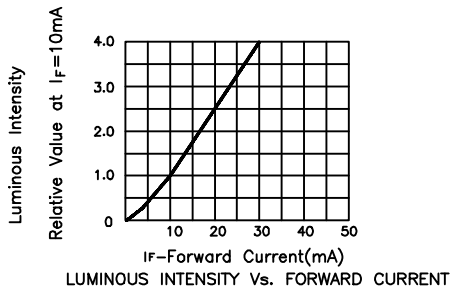
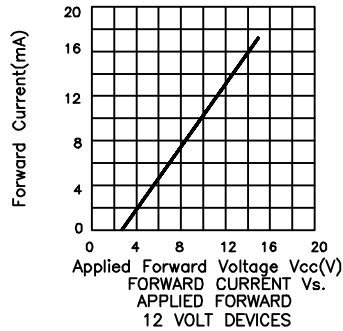
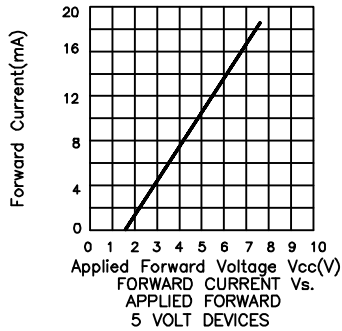
Notes:
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 4mm below package base.



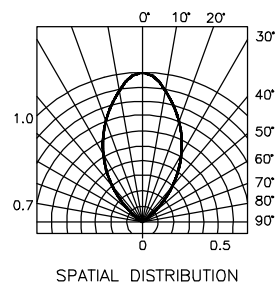
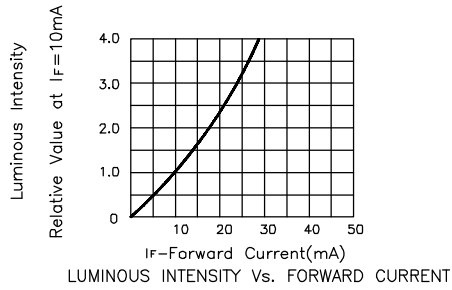
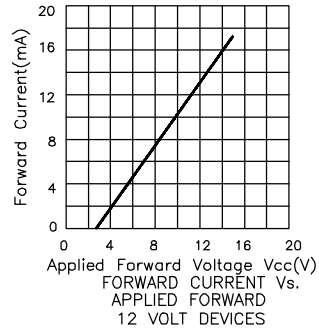
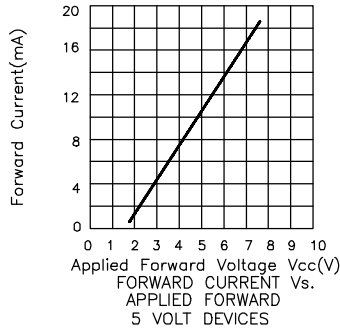
High Efficiency Red L-53ID-5V / -12V



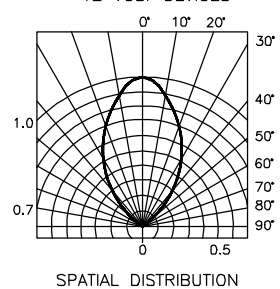
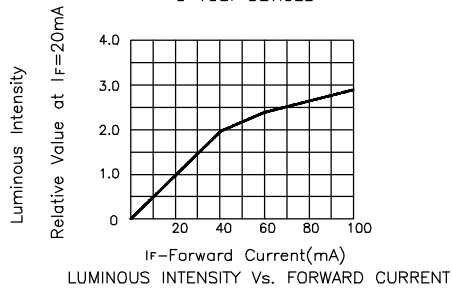
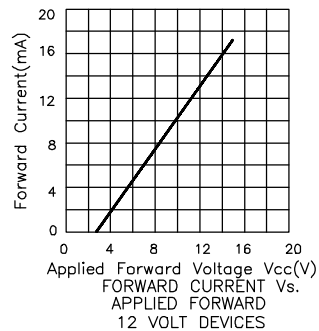
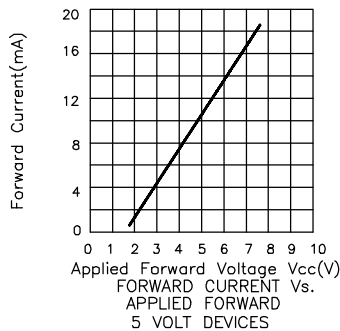
Green L-53GD-5V / -12V



Yellow L-53YD-5V / -12V



Super Bright Red L-53SRD-5V / -12V



Super Bright Green L-53SGD-5V / -12V

