



## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10mA*20mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-53BR-5.08/ID L-53BR-6.35/ID L-53BR-9.52/ID L-53BR-17.8/ID L-53BR-23.5/ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	25	60°
L-53BR-5.08/SRD L-53BR-6.35/SRD L-53BR-9.52/SRD L-53BR-17.8/SRD L-53BR-23.5/SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*110	*300	60°
L-53BR-5.08/YD L-53BR-6.35/YD L-53BR-9.52/YD L-53BR-17.8/YD L-53BR-23.5/YD	YELLOW(GaAsP/GaP)	YELLOW DIFFUSED	5	20	60°
L-53BR-5.08/GD L-53BR-6.35/GD L-53BR-9.52/GD L-53BR-17.8/GD L-53BR-23.5/GD	GREEN (GaP)	GREEN DIFFUSED	5	20	60°
L-53BR-5.08/SGD L-53BR-6.35/SGD L-53BR-9.52/SGD L-53BR-17.8/SGD L-53BR-23.5/SGD	SUPER BRIGH GREEN (GaP)	GREEN DIFFUSED	*18	*40	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<sub>A</sub>=25°C

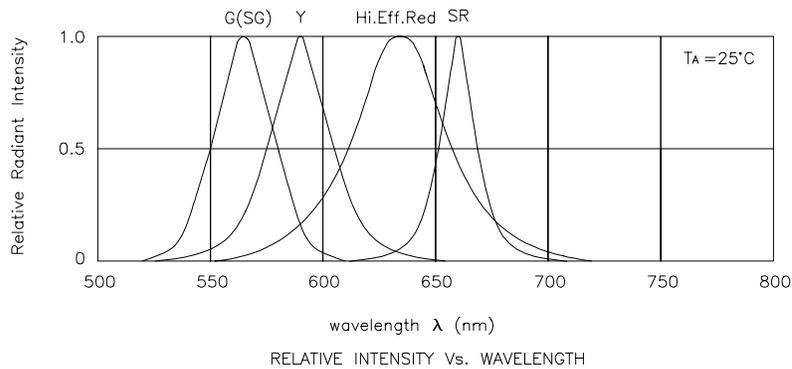
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green Super Bright Green	627 660 590 565 565		nm	I <sub>F</sub> =20mA
λ <sub>D</sub>	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green Super Bright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

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

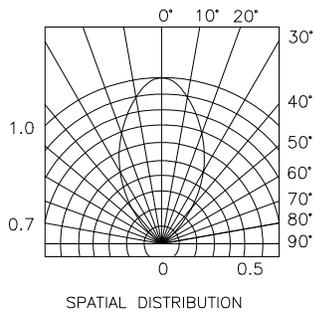
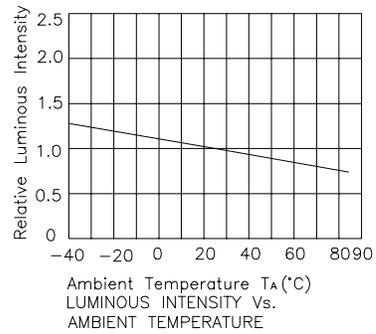
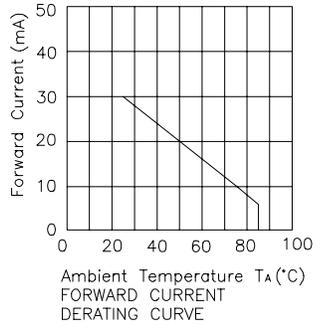
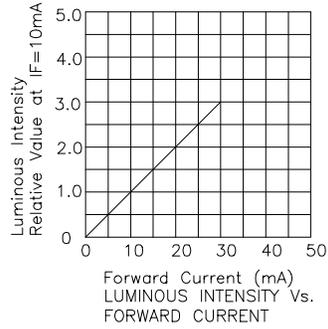
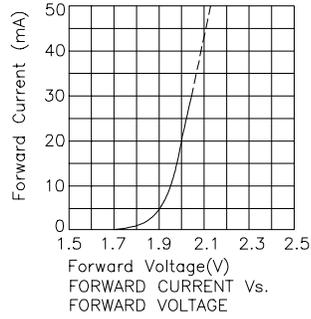
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Super Bright Green	Units
Power dissipation	105	100	105	105	105	mW
DC Forward Current	30	30	30	25	25	mA
Peak Forward Current [1]	160	155	140	140	140	mA
Reverse Voltage	5					V
Operating Temperature	-40°C To +85°C					
Storage Temperature	-40°C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

Notes:

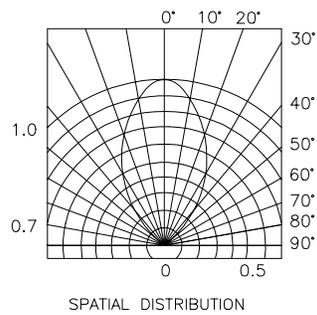
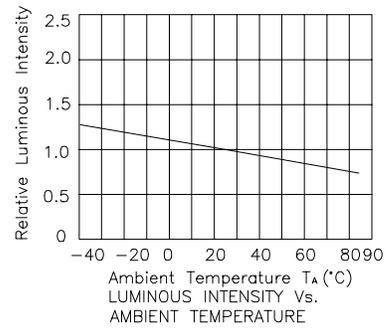
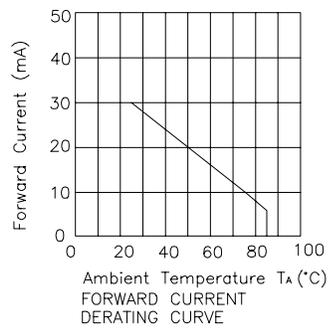
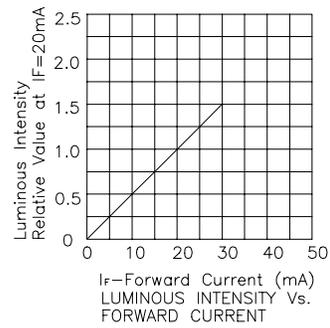
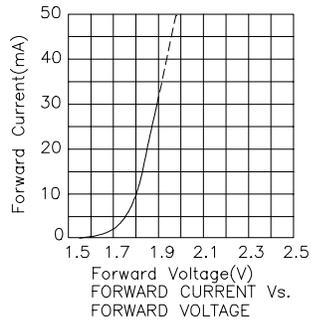
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



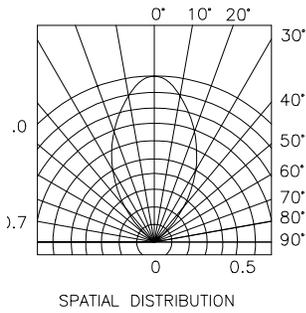
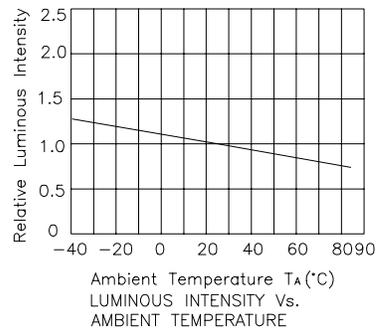
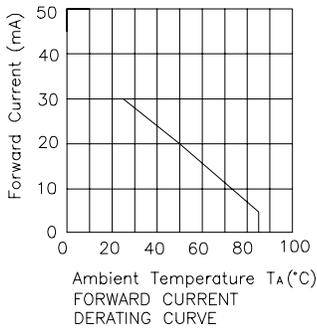
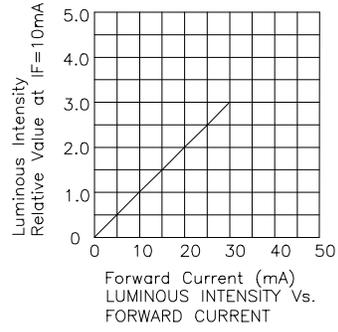
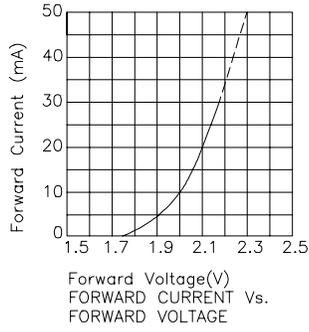
## High Efficiency Red



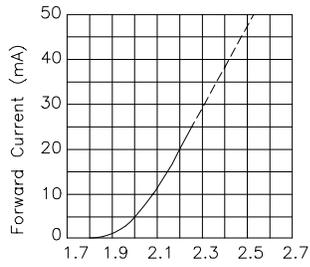
## Super Bright Red



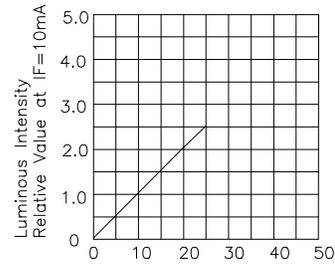
## Yellow



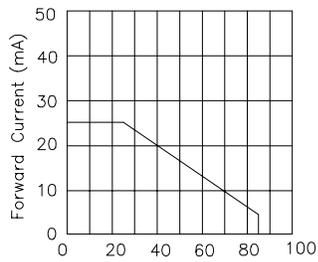
## Green



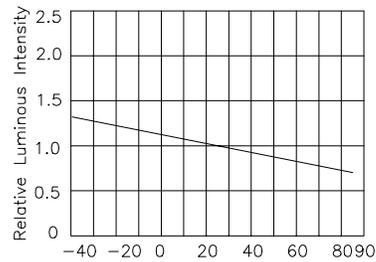
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



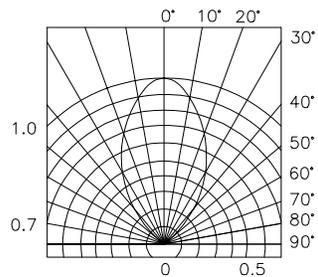
Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature  $T_A$ (°C)  
FORWARD CURRENT  
DERATING CURVE



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



SPATIAL DISTRIBUTION

## Super Bright Green

