

Features

- UNIFORM LIGHT EMITTING AREA.
- EASILY MOUNTED ON P.C. BOARDS OR INDUSTRY STANDARD SOCKETS.
- FLUSH MOUNTABLE.
- EXCELLENT ON/OFF CONTRAST.
- CAN BE USED WITH PANELS AND LEGEND MOUNTS.
- MECHANICALLY RUGGED.
- I.C. COMPATIBLE.

DE/4ID HIGH EFFICIENCY RED
 DE/4SRD SUPER BRIGHT RED
 DE/4YD YELLOW
 DE/4GD GREEN
 DE/4SGD SUPER BRIGHT GREEN

Description

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

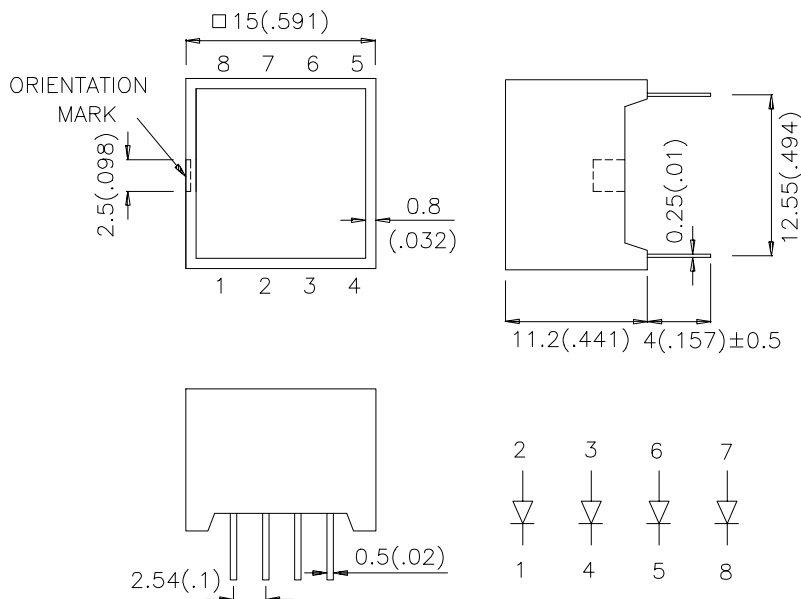
The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

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 Green Light Emitting Diode.

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

Package Dimensions & Internal Circuit Diagram



Notes:
 1. All dimensions are in millimeters (inches). Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
 2. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA *20mA		Viewing Angle
			Min.	Typ.	
DE/4ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	9	31	120°
DE/4SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*300	120°
DE/4YD	YELLOW(GaAsP/GaP)	YELLOW DIFFUSED	9	31	120°
DE/4GD	GREEN (GaP)	GREEN DIFFUSED	9	52	120°
DE/4SGD	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	*40	*80	120°

Notes:

1. $\theta_{1/2}$ 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 $T_A=25^\circ\text{C}$

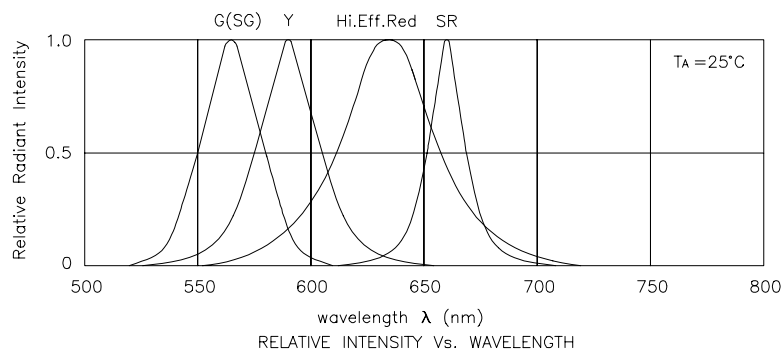
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green Super Bright Green	627 660 590 565 565		nm	$I_F=20\text{mA}$
λ_D	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green Super Bright Green	625 640 588 568 568		nm	$I_F=20\text{mA}$
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green Super Bright Green	45 20 35 30 30		nm	$I_F=20\text{mA}$
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green Super Bright Green	15 45 20 15 15		pF	$V_F=0\text{V}; f=1\text{MHz}$
V_F	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	$I_F=20\text{mA}$
I_R	Reverse Current	All		10	μA	$V_R = 5\text{V}$

Absolute Maximum Ratings at T_A=25°C

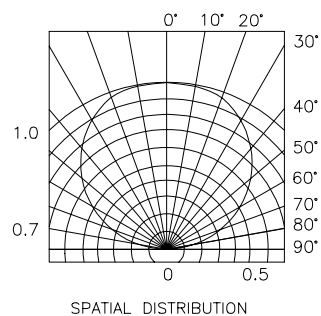
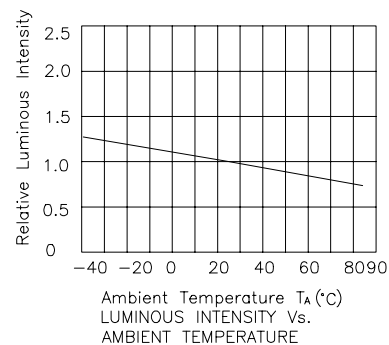
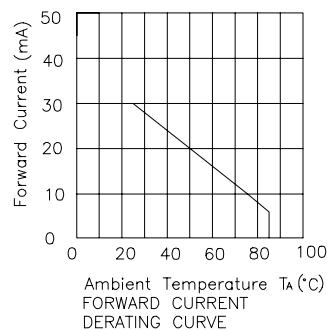
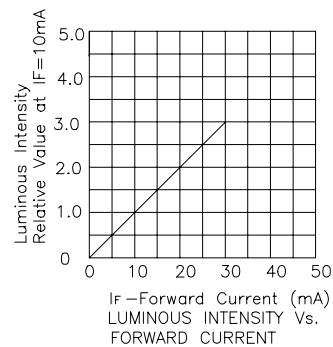
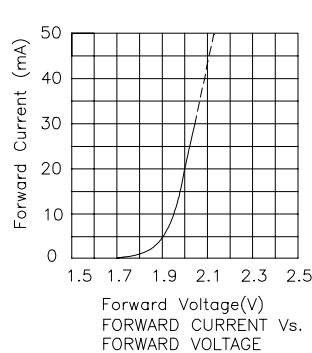
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Super Bright Green	Units
Power dissipation	105	100	105	105	105	mW
DC Forward Current	30	30	30	25	25	mA
Peak Forward Current [1]	160	155	140	140	140	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Solder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

Notes:

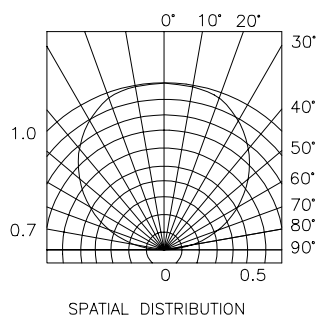
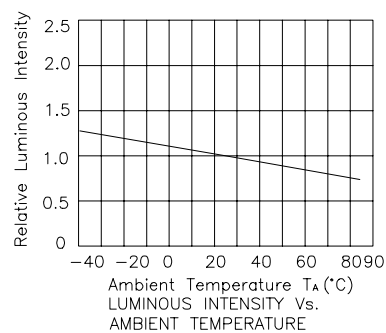
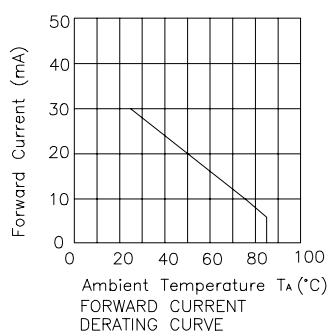
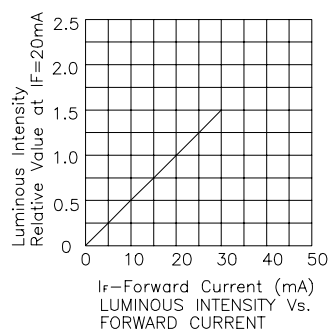
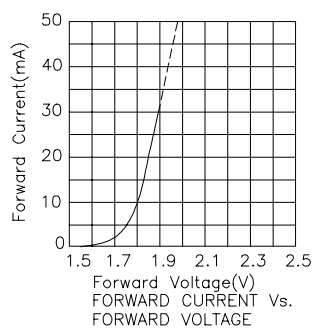
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.



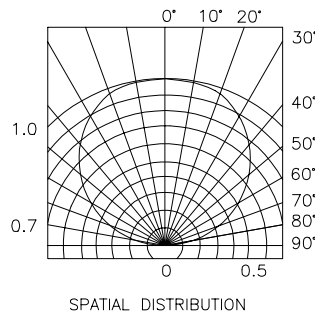
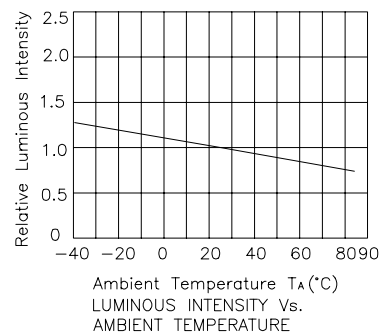
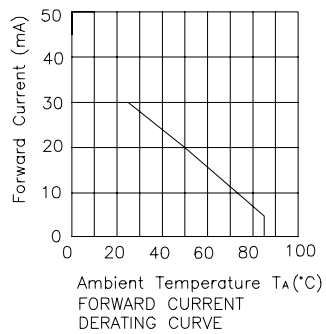
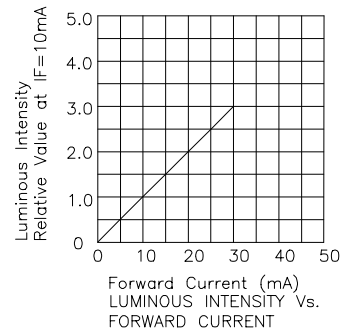
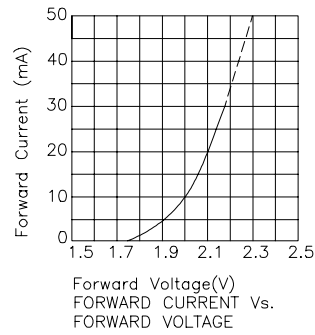
High Efficiency Red DE/4ID



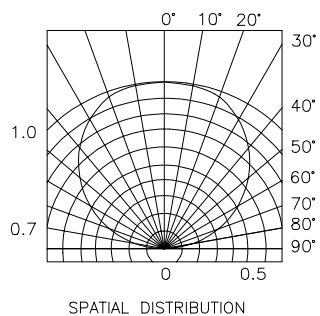
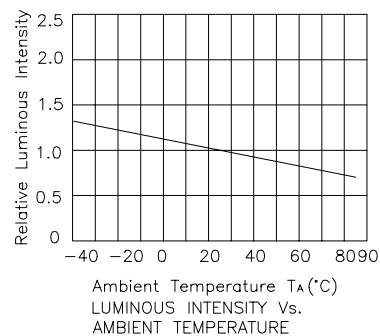
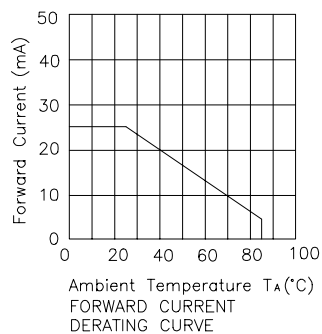
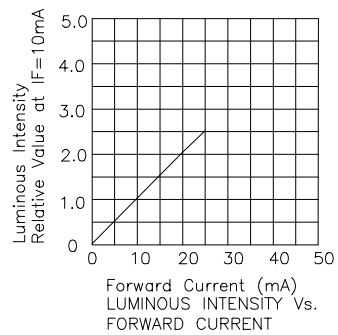
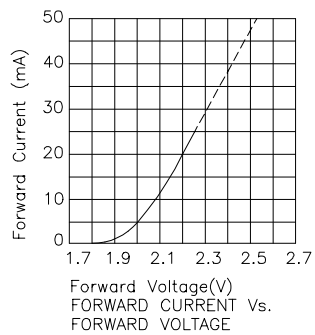
Super Bright Red DE/4SRD



Yellow DE/4YD



Green DE/4GD



Super Bright Green DE/4SGD

