

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

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.
- SUPER BRIGHT RED AVAILABLE.

Description

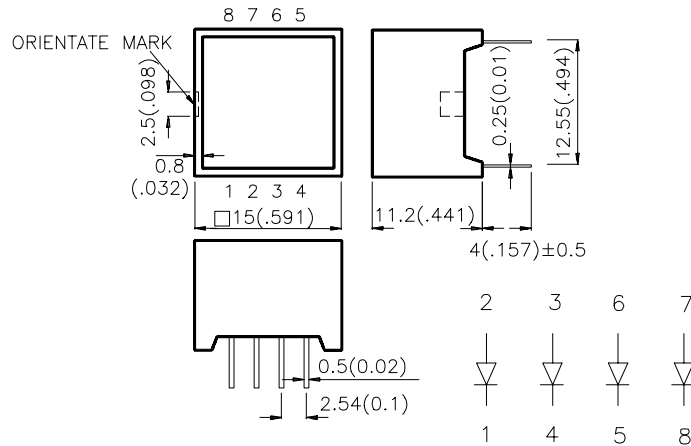
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green and Super Bright 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.

Package Dimensions & Internal Circuit Diagram



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) @ 10 mA		Viewing Angle
			Min.	Typ.	2θ1/2
DE/4ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	9	31	120°
DE/4GD	GREEN (GaP)	GREEN DIFFUSED	9	52	120°
DE/4YD	YELLOW(GaAsP/GaP)	YELLOW DIFFUSED	9	31	120°
DE/4SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*300	120°
DE/4SGD	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	*40	*80	120°

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

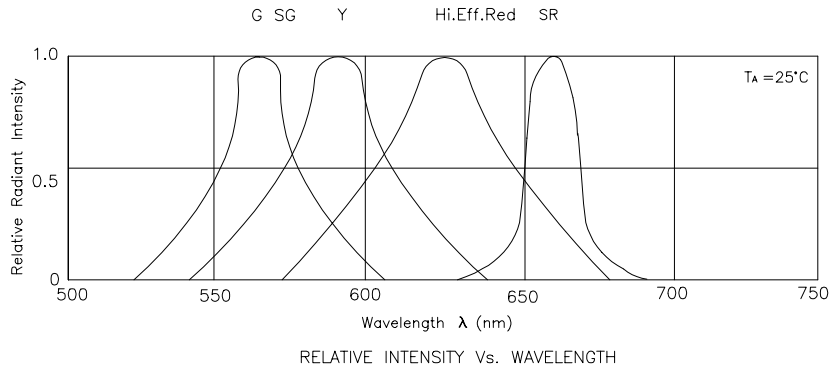
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565		nm	I _F =20mA
λ _D	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568	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

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

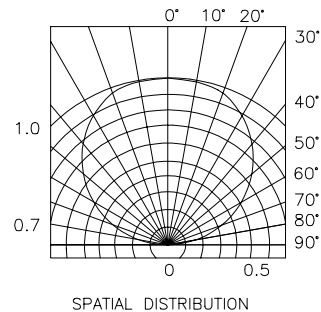
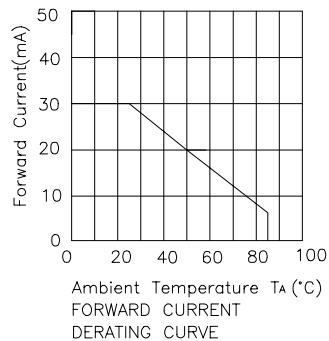
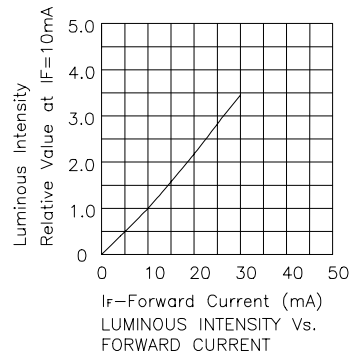
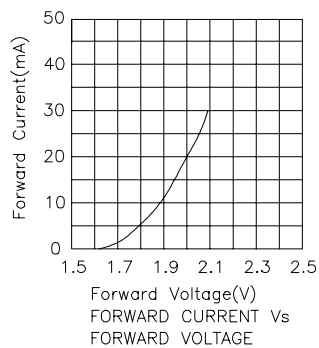
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Super Bright Green	Units
Power dissipation	105	105	105	100	105	mW
DC Forward Current	30	25	30	30	25	mA
Peak Forward Current [1]	160	140	140	155	140	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Solder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

Notes:

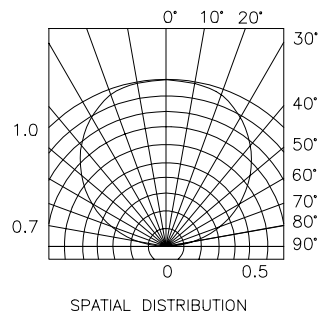
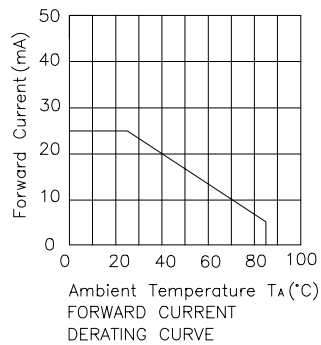
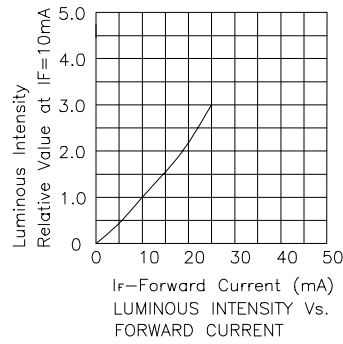
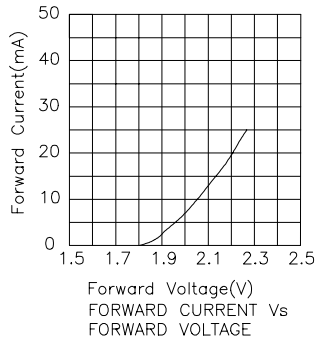
- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



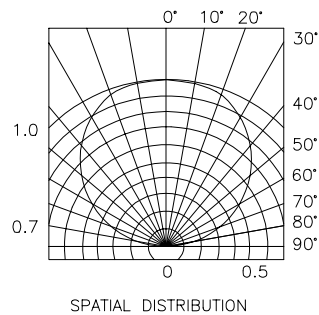
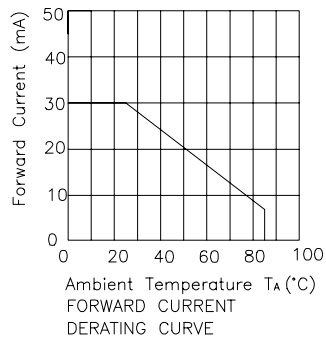
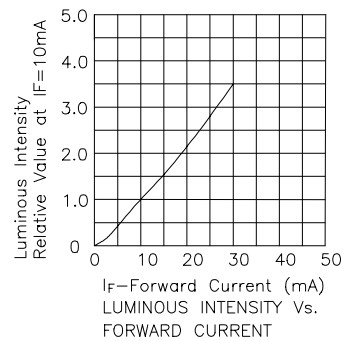
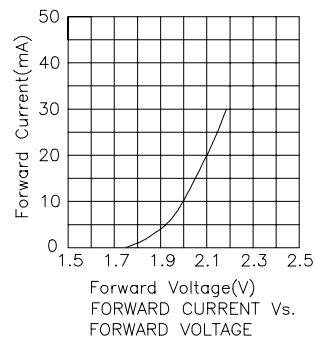
High Efficiency Red DE/4ID



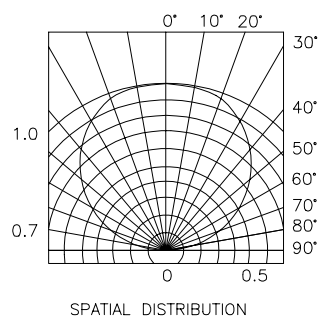
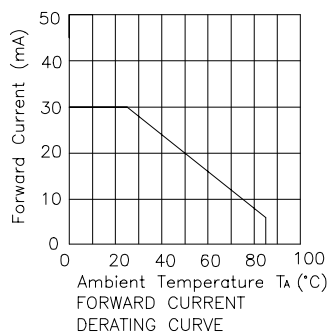
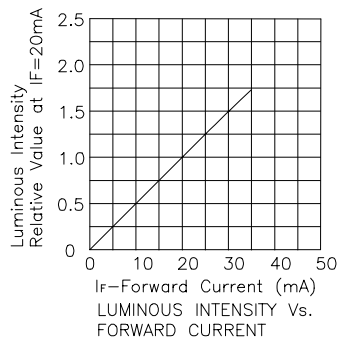
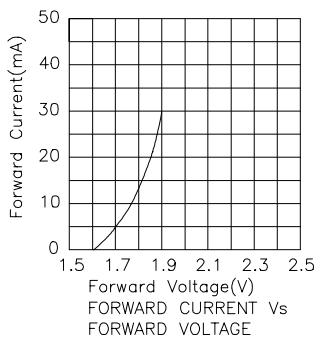
Green DE/4GD



Yellow DE/4YD



Super Bright Red DE/4SRD



Super Bright Green DE/4SGD

