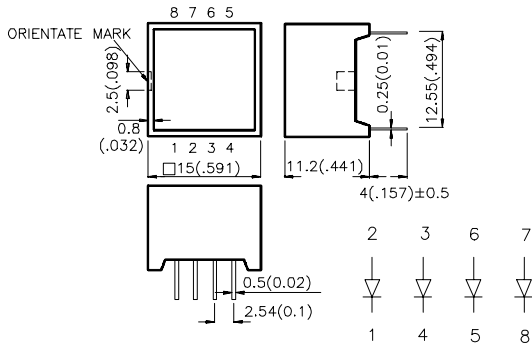


## Package Dimensions & Internal Circuit Diagram



### 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.

## LIGHT BARS

EDE4ID	HIGH EFFICIENCY RED
EDE4GD	GREEN
EDE4YD	YELLOW
EDE4SRD	SUPER BRIGHT RED
EDE4SGD	SUPER BRIGHT GREEN

## Features

1. UNIFORM LIGHT EMITTING AREA.
2. EASILY MOUNTED ON P.C. BOARDS OR INDUSTRY STANDARD SOCKETS.
3. FLUSH MOUNTABLE.
4. EXCELLENT ON/OFF CONTRAST.
5. CAN BE USED WITH PANELS AND LEGEND MOUNTS.
6. MECHANICALLY RUGGED.
7. I.C. COMPATIBLE.
8. 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.

## Selection Guide

Part No.	Emitting Color +Material	$\lambda$ D(nm)	Lens Type	Iv (mcd) @10mA*20mA		Viewing Angle
				Min.	Typ.	2 $\theta$ 1/2
EDE4ID	GaAsP/ GaP	625	RED DIFFUSED	9	31	120°
EDE4GD	GaP	568	GREEN DIFFUSED	9	52	120°
EDE4YD	GaAsP/ GaP	588	YELLOW DIFFUSED	9	31	120°
EDE4SRD	GaAlAs	640	RED DIFFUSED	*100	*300	120°
EDE4SGD	GaP	568	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.

DATA NO :EA0343

REV NO :V1

DATE :OCT/07/2001

## Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

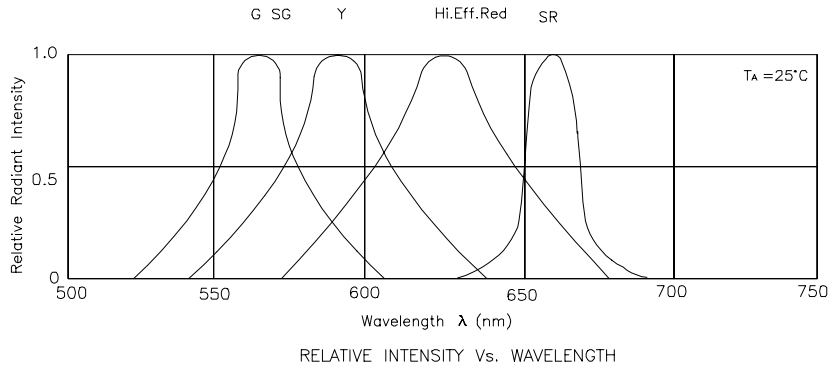
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565		nm	$I_F=20\text{mA}$
$\lambda_D$	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright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

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

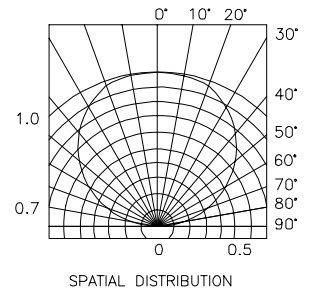
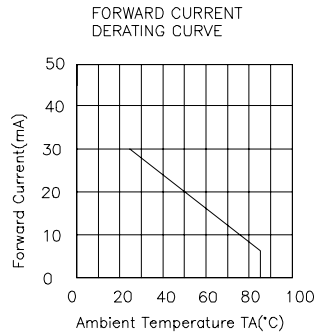
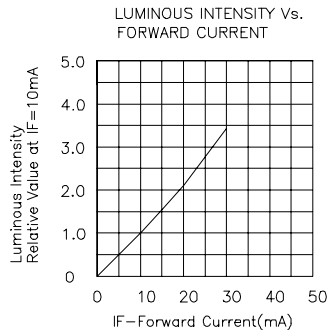
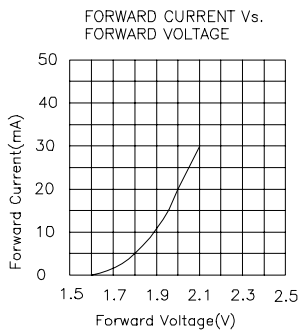
Parameter	High Efficiency Red	Green	Yellow	Super Bright Green	Super Bright Red	Units
Power dissipation	105	105	105	105	100	mW
DC Forward Current	30	25	30	25	30	mA
Peak Forward Current [1]	160	140	140	140	155	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Soldering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

Notes:

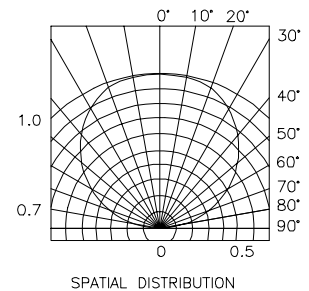
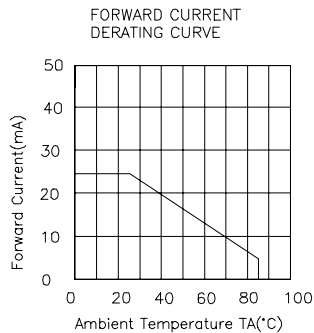
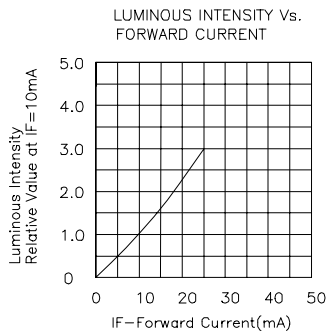
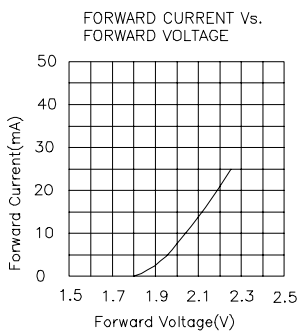
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



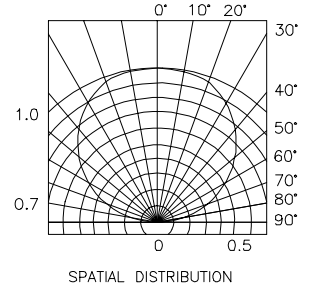
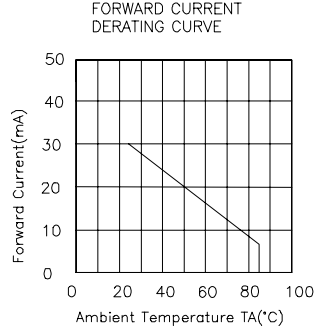
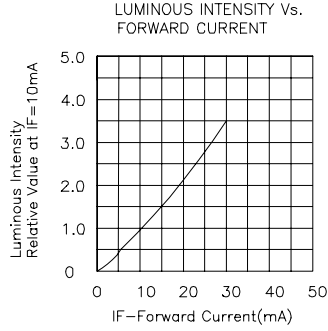
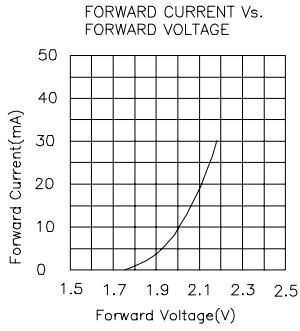
## High Efficiency Red EDE4ID



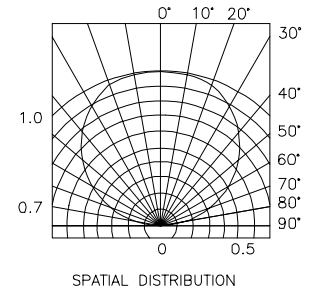
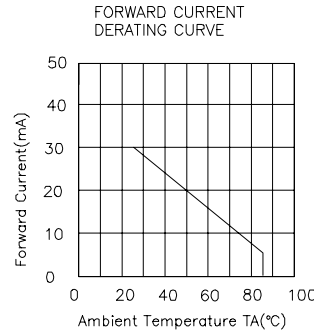
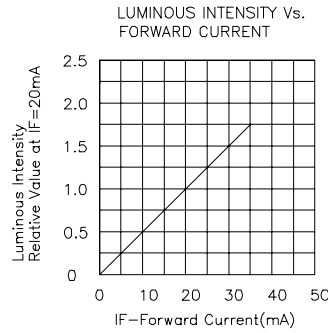
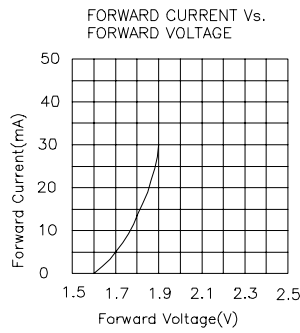
## Green EDE4GD



## Yellow EDE4YD



## Super Bright Red EDE4SRD



## Super Bright Green EDE4SGD

