

6.8mmx19.9mm LIGHT BARS

DF-3ID HIGH EFFICIENCY RED DF-3SRD SUPER BRIGHT RED DF-3GD GREEN
DF-3YD YELLOW

DF-3SGD 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.

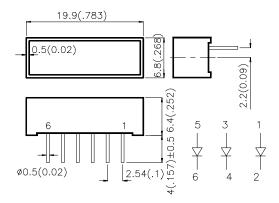
The Yellow source color devices are made with Gallium

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.

SPEC NO: KDA0387 APPROVED: J.LU REV NO: V.1 CHECKED: DATE: SEP/19/2001

PAGE: 1 OF 5

DRAWN: J.X.FU



Selection Guide

Part No.	Dice	Lens Type	lv (mcd) @ 10 mA		Viewing Angle
			Min.	Тур.	201/2
DF-3ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	9	31	120°
DF-3GD	GREEN (GaP)	GREEN DIFFUSED	9	52	120°
DF-3YD	YELLOW(GaAsP/GaP)	YELLOW DIFFUSED	9	31	120°
DF-3SRD	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*100	*300	120°
DF-3SGD	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	*60	*100	120°

Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device Typ.		Max.	Units	Test Conditions	
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	627 565 590 660 565		nm	IF=20mA	
λD	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	625 568 588 640 568		nm	IF=20mA	
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	45 30 35 20 30		nm	IF=20mA	
С	Capacitance	High Efficiency Red Green Yellow Super Bright Red Super Bright Green	15 15 20 45 15		pF	VF=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	IF=20mA	
l _R	Reverse Current	All		10	uA	VR = 5V	

SPEC NO: KDA0387 APPROVED: J.LU

REV NO: V.1 CHECKED:

DATE: SEP/19/2001 DRAWN: J.X.FU

PAGE: 2 OF 5

^{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.

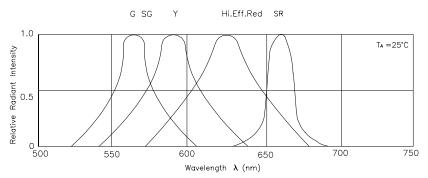


Absolute Maximum Ratings at T_A=25°C

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					

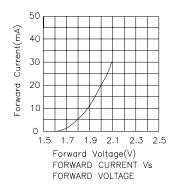
Notes

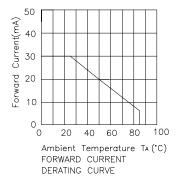
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 4mm below package base.

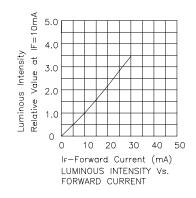


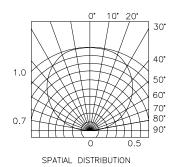
RELATIVE INTENSITY Vs. WAVELENGTH

High Efficiency Red DF-3ID





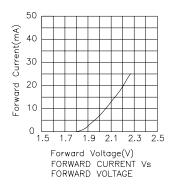


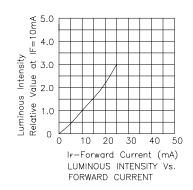


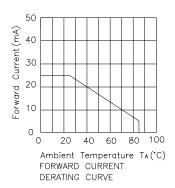
DATE: SEP/19/2001 DRAWN: J.X.FU PAGE: 3 OF 5

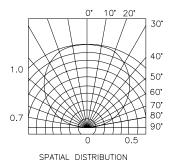
Kingbright

Green DF-3GD

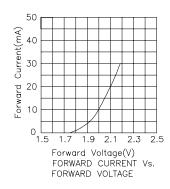


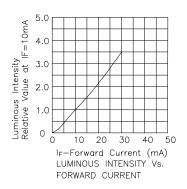


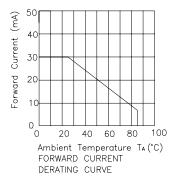


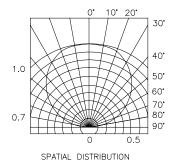


Yellow DF-3YD





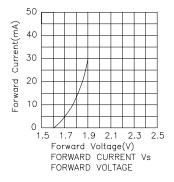


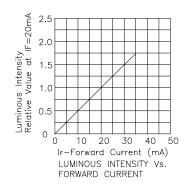


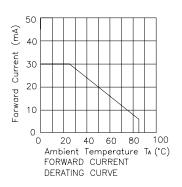
DATE: SEP/19/2001 DRAWN: J.X.FU PAGE: 4 OF 5

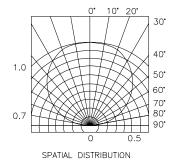
Kingbright

Super Bright Red DF-3SRD

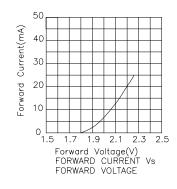


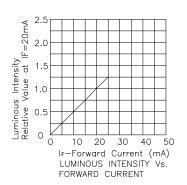


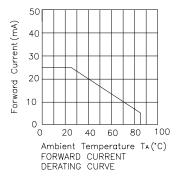


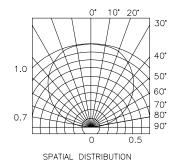


Super Bright Green DF-3SGD









DATE: SEP/19/2001 DRAWN: J.X.FU PAGE: 5 OF 5