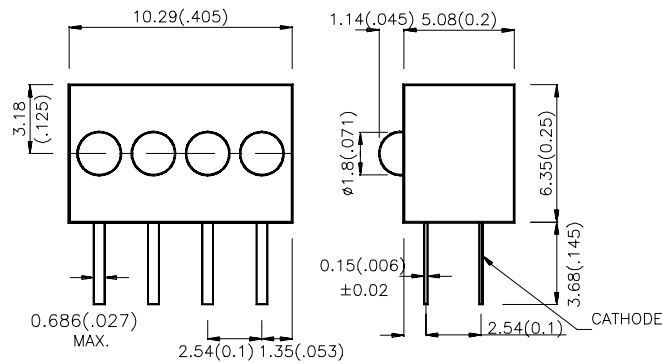


Package Dimensions



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.

SUBMINIATURE SOLID STATE LAMPS

EM2520EF/ID	HIGH EFFICIENCY RED
EM2520EF/SGD	SUPER BRIGHT GREEN
EM2520EF/YD	YELLOW

Features

1. HIGH RELIABILITY
2. BLACK CASE ENHANCES CONTRAST.
3. VIBRATION AND SHOCK RESISTANT.
4. AVAILABLE WITH A VARIETY OF LEDs.
5. UL RATING : 94V-0.
6. HOUSING MATERIAL: TYPE 66 NYLON.

Description

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

The 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.

Selection Guide

Part No.	Emitting Color +Material	$\lambda D(nm)$	Lens Type	Iv (mcd) @ 20 mA *V=5V		Viewing Angle 2 θ 1/2
				Min.	Typ.	
EM2520EF/ID	GaAsP/GaP	625	RED DIFFUSED	8	30	40°
EM2520EF/ID5V	GaAsP/GaP	625	RED DIFFUSED	*3	*8	40°
EM2520EF/YD	GaAsP/GaP	588	YELLOW DIFFUSED	3	10	40°
EM2520EF/YD5V	GaAsP/GaP	588	YELLOW DIFFUSED	*2	*3	40°
EM2520EF/SGD	GaP	568	GREEN DIFFUSED	3	10	40°
EM2520EF/SGD5V	GaP	568	GREEN DIFFUSED	*2	*4	40°

Notes:

1. θ 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 5V.

DATA NO :EA0304

REV NO :V1

DATE :SEP/08/2001

Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Yellow Super Bright Green	627 590 565		nm	I _F =20mA
λ_D	Dominate Wavelength	High Efficiency Red Yellow Super Bright Green	625 588 568		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Yellow Super Bright Green	45 35 30		nm	I _F =20mA
C	Capacitance	High Efficiency Red Yellow Super Bright Green	15 20 15		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	High Efficiency Red Yellow Super Bright Green	2.0 2.1 2.2	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°C

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

Electrical / Optical Characteristics at T_A=25°C For 5V

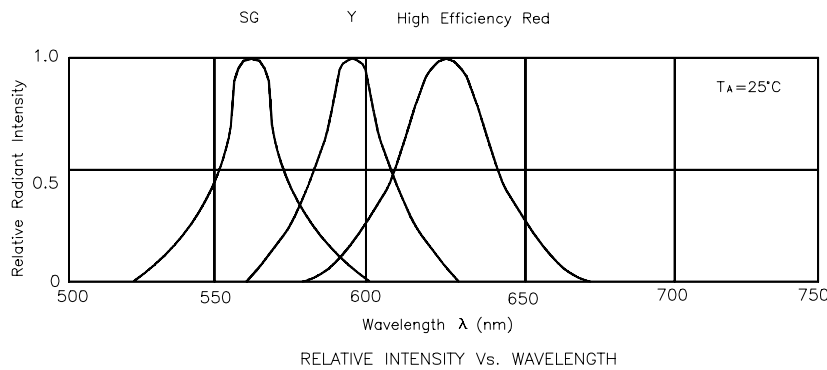
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Yellow Super Bright Green	627 590 565		nm	V _F = 5V
λ_D	Dominate Wavelength	High Efficiency Red Yellow Super Bright Green	625 588 568		nm	V _F = 5V
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Yellow Super Bright Green	45 35 30		nm	V _F = 5V
V _F	Forward Voltage	High Efficiency Red Yellow Super Bright Green	13 13 13		V	V _F = 5V
I _R	Reverse Current	All		10	uA	V _R = 5V

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$ For 5V

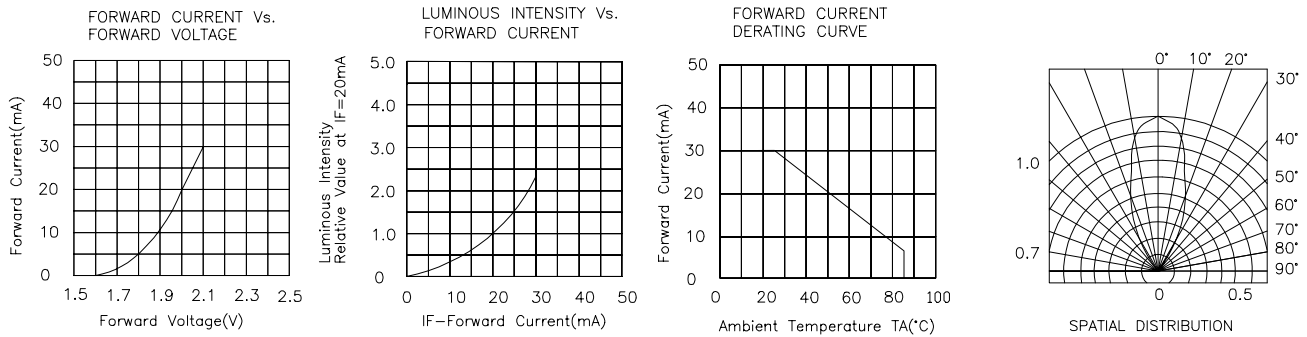
Parameter	High Efficiency Red	Super Bright Green	Yellow	Units
Power dissipation	85	85	85	mW
Forward voltage(Max.)	6.5	6.5	6.5	V
Reverse Voltage	5	5	5	V
Operating Temperature	-40°C To $+70^\circ\text{C}$			
Storage Temperature	-40°C To $+85^\circ\text{C}$			
Lead Soldering Temperature[1]	260°C For 5 Seconds			

Notes:

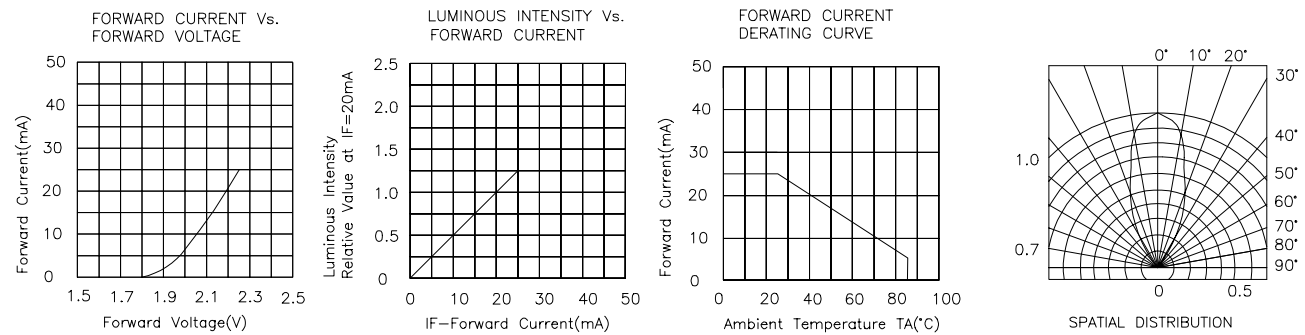
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm blow package base.



High Efficiency Red EM2520EF/ID



Super Bright Green EM2520EF/SGD

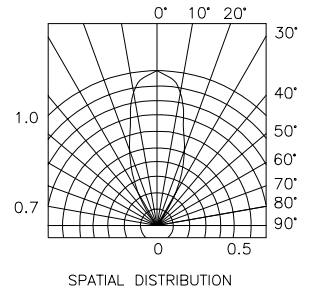
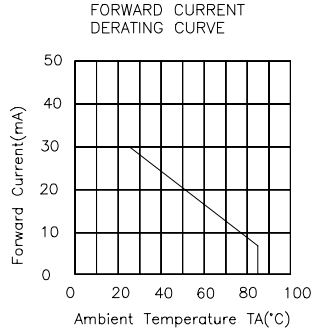
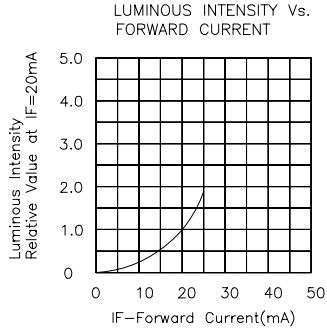
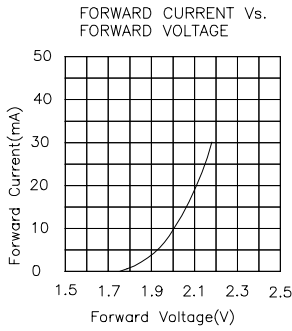


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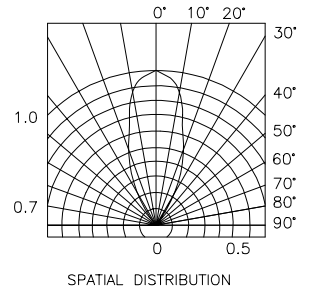
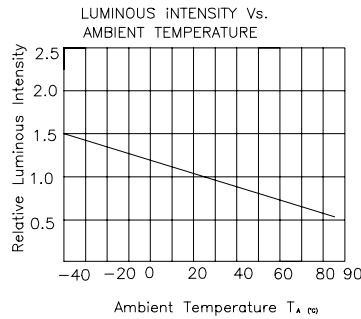
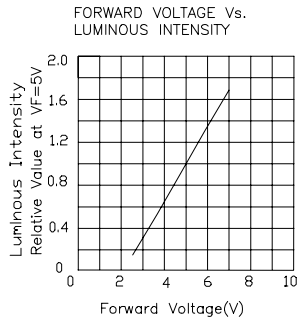
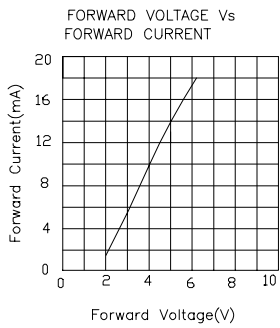
REV NO :V1

DATE :SEP/08/2001

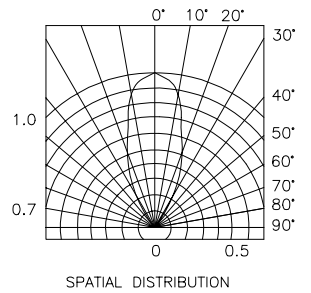
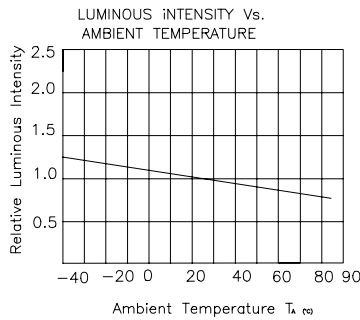
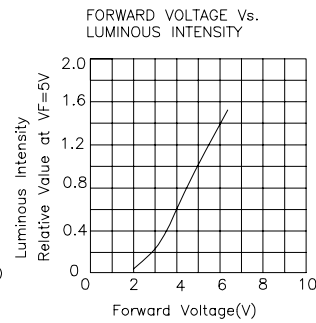
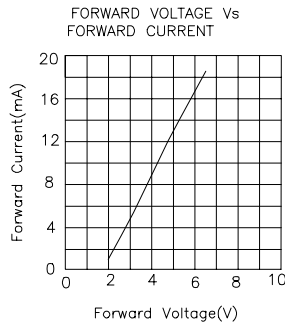
Yellow EM2520EF/YD



High Efficiency Red EM2520EF/ID For 5V



Super Bright Green EM2520EF/SGD For 5V



Yellow EM2520EF/YD For 5V

