

AM2520ID02	HIGH EFFICIENCY RED
AM2520EC02	HIGH EFFICIENCY RED
AM2520SGD02	SUPER BRIGHT GREEN
AM2520SGC02	SUPER BRIGHT GREEN
AM2520YD02	YELLOW
AM2520YC02	YELLOW

Features

- SUBMINIATURE PACKAGE.
- LONG LIFE SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.

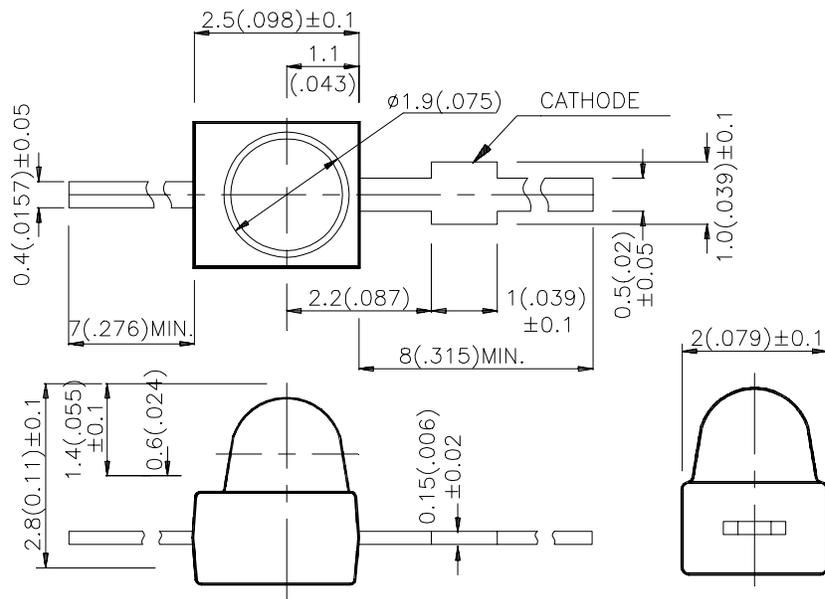
Description

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.

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.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	θ1/2
AM2520ID02	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	30	40°
AM2520EC02	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	12	70	20°
AM2520SGD02	SUPER BRIGHT GREEN (GaP)	GREEN DIFFUSED	3	10	40°
AM2520SGC02	SUPER BRIGHT GREEN (GaP)	WATER CLEAR	40	100	20°
AM2520YD02	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	3	10	40°
AM2520YC02	YELLOW (GaAsP/GaP)	WATER CLEAR	10	30	20°

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

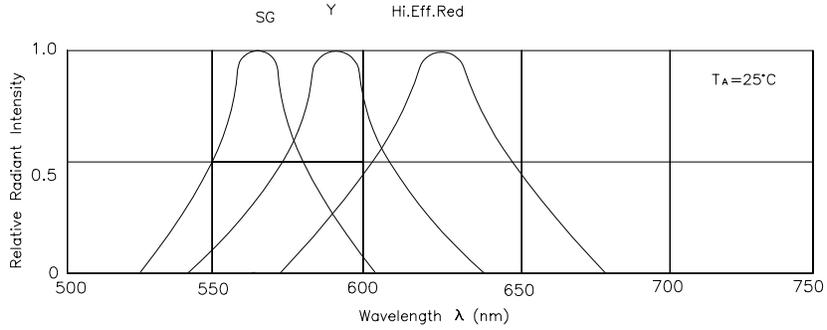
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	High Efficiency Red Super Bright Green Yellow	627 565 590		nm	IF=20mA
λ _D	Dominate Wavelength	High Efficiency Red Super Bright Green Yellow	625 568 588		nm	IF=20mA
Δλ _{1/2}	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Yellow	45 30 35		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green Yellow	15 15 20		pF	VF=0V;f=1MHz
V _F	Forward Voltage	High Efficiency Red Super Bright Green Yellow	2.0 2.2 2.1	2.5 2.5 2.5	V	IF=20mA
I _r	Reverse Current	All		10	μA	VR = 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			
Lead Soldering Temperature [2]	260°C For 5 Seconds			

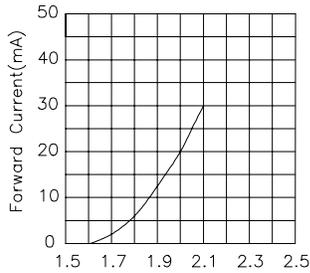
Notes:

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

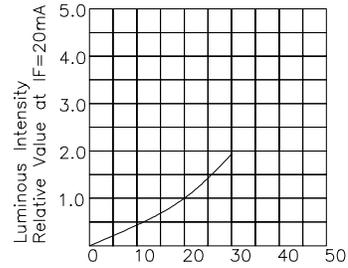


RELATIVE INTENSITY Vs. WAVELENGTH

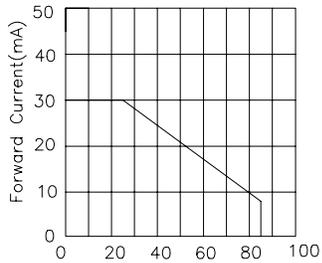
High Efficiency Red AM2520ID02,AM2520EC02



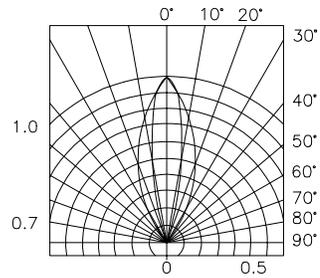
FORWARD CURRENT Vs FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

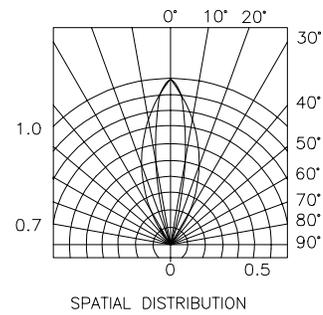
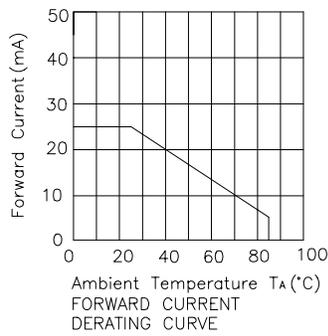
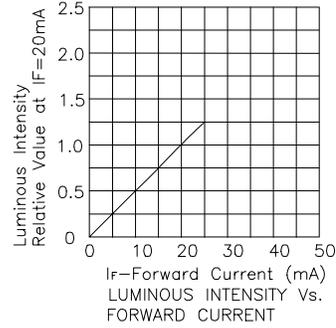
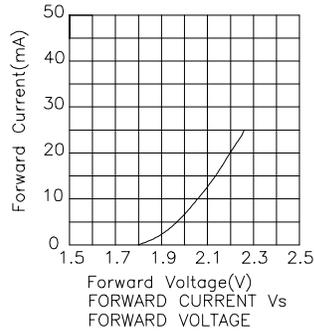


FORWARD CURRENT DERATING CURVE



SPATIAL DISTRIBUTION

Super Bright Green AM2520SGD02,AM2520SGC02



Yellow AM2520YD02,AM2520YC02

