

Features

- 3.0MM X 2.0MM, 1.4MM HIGH, ONLY MINIMUM SPACE REQUIRED.
- SUITABLE FOR COMPACT OPTOELECTRONIC APPLICATIONS.
- LOW POWER CONSUMPTION.
- EMBOSSED TAPING.

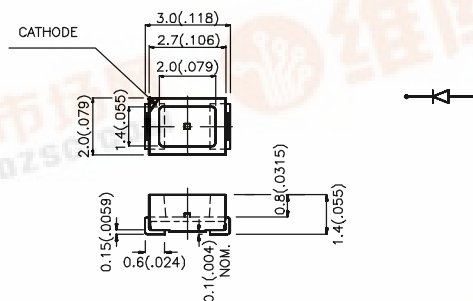
Package Dimensions

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.



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 subjected to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	
AA3020IT	HIGH EFFICIENCY RED (GaAsP/GaP)	RED TRANS.	8	40	90°
AA3020EC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	8	40	90°
AA3020YT	YELLOW (GaAsP/GaP)	YELLOW TRANS.	8	30	90°
AA3020YC	YELLOW (GaAsP/GaP)	WATER CLEAR	8	30	90°
AA3020SGT	SUPER BRIGHT GREEN (GaP)	GREEN TRANS.	8	30	90°
AA3020SGC	SUPER BRIGHT GREEN (GaP)	WATER CLEAR	8	30	90°

Note:

1. $\theta_{1/2}$ 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

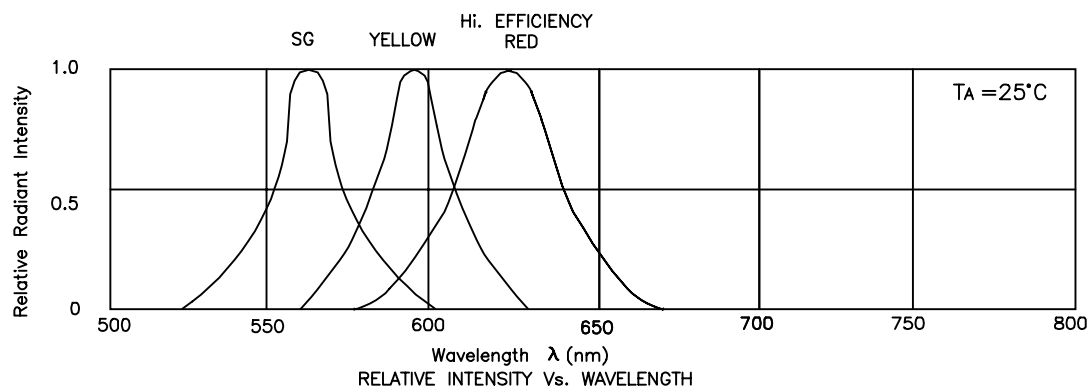
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Super Bright Green Yellow	625 565 590		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Yellow	45 30 35		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green Yellow	12 45 10		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	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

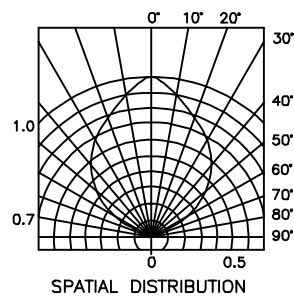
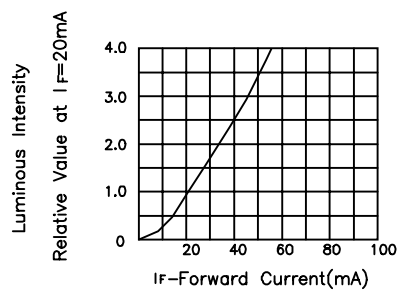
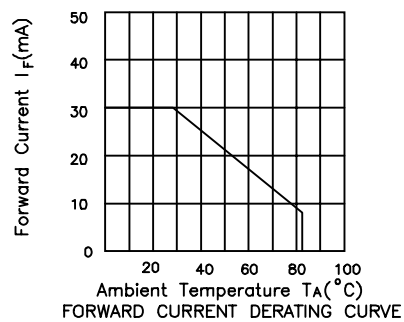
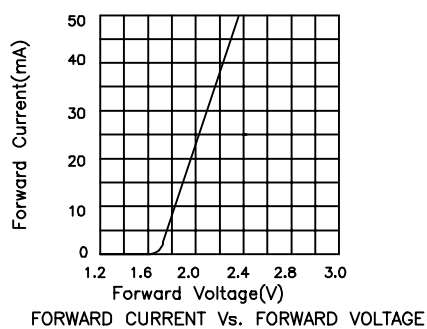
Parameter	High Efficiency Red	Super Bright Green	Yellow	Units
Power dissipation	105	105	105	mW
DC Forward Current	30	25	30	mA
Peak Forward Current [1]	150	150	150	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			
Lead Soldering Temperature [2]	260°C For 5 Seconds			

Note:

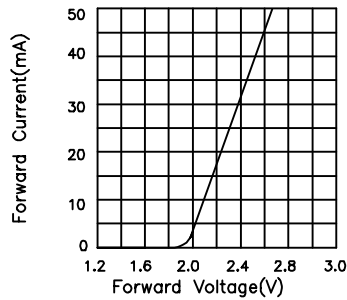
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



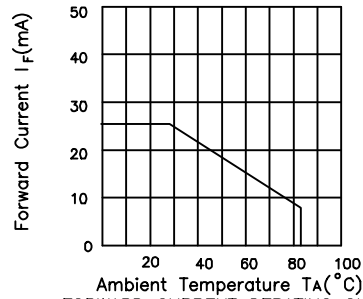
High Efficiency Red AA3020EC, AA3020IT



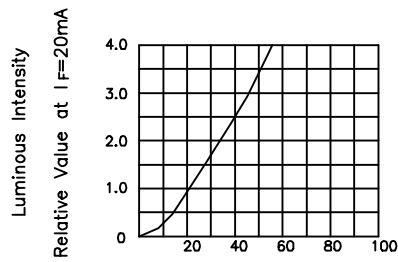
Super Bright Green AA3020SGC,AA3020SGT



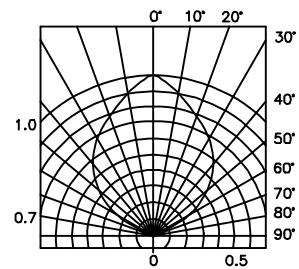
FORWARD CURRENT Vs. FORWARD VOLTAGE



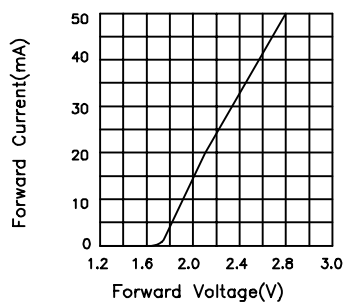
FORWARD CURRENT DERATING CURVE



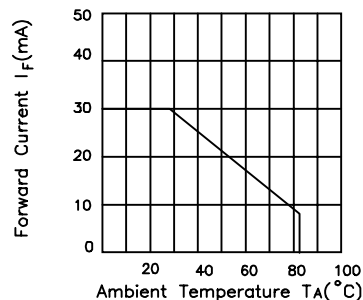
LUMINOUS INTENSITY Vs. FORWARD CURRENT



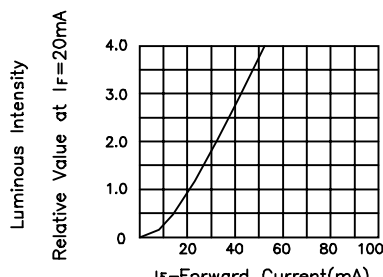
Yellow AA3020YC,AA3020YT



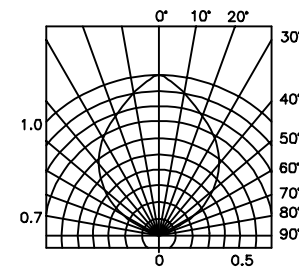
FORWARD CURRENT Vs. FORWARD VOLTAGE



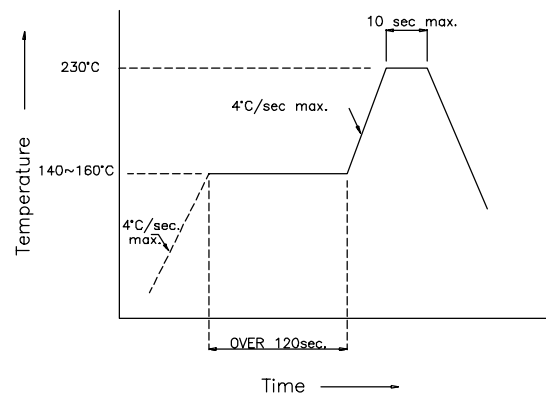
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

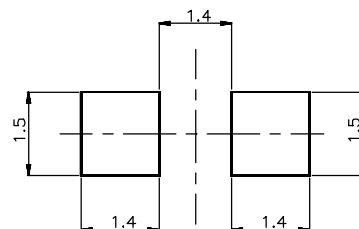


AA3020 SERIES SMT Reflow Soldering Instruction



AA3020 SERIES Recommended Soldering Pattern (Units : mm)

FOR REFLOW SOLDERING



AA3020 SERIES Tape Specifications (Units : mm)

