

Package Dimensions



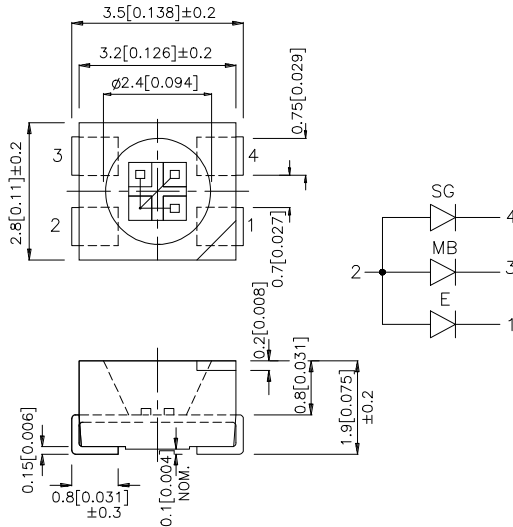
ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

3.5x2.8mm SURFACE MOUNT LED LAMP

EAA3528EMBSGC

HIGH EFFICIENCY RED
BLUE
SUPER BRIGHT GREEN



Features

- BOTH CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDERING PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE : 1500PCS / REEL.

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Description

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

The Blue source color devices are made with GaN on SiC Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDS.

All devices, equipment and machinery must be electrically grounded.

Selection Guide

Part No.	Emitting Color +Material	$\lambda D(nm)$	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
				Min.	Typ.	
EAA3528EMBSGC	GaAsP/GaP	625	WATER CLEAR	10	30	2 θ 1/2 120°
	GaN	466		4	20	
	GaP	568		4	20	

Note:

1. $\theta 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

DATA NO :EA0449

REV NO :V1

DATE :MAR/12/2004

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

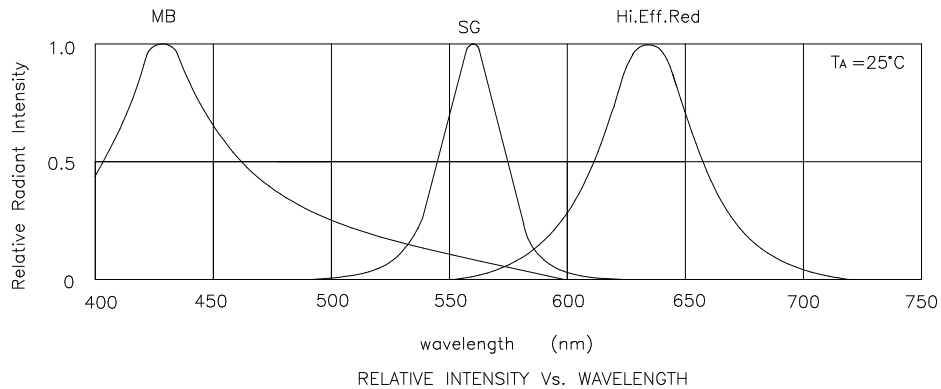
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Blue Super Bright Green	627 430 565		nm	$I_F=20\text{mA}$
λ_D	Dominate Wavelength	High Efficiency Red Blue Super Bright Green	625 466 568		nm	$I_F=20\text{mA}$
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	High Efficiency Red Blue Super Bright Green	45 60 30		nm	$I_F=20\text{mA}$
C	Capacitance	High Efficiency Red Blue Super Bright Green	15 100 15		pF	$V_F=0\text{V}; f=1\text{MHz}$
V_F	Forward Voltage	High Efficiency Red Blue Super Bright Green	2.0 3.8 2.2	2.5 4.5 2.5	V	$I_F=20\text{mA}$
I_R	Reverse Current	All		10	μA	$V_R = 5\text{V}$

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

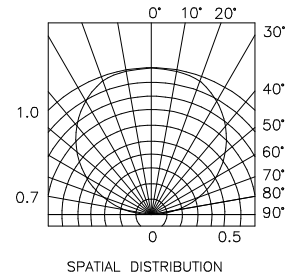
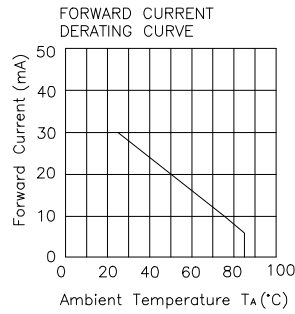
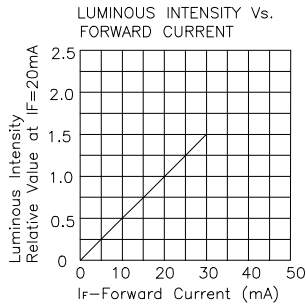
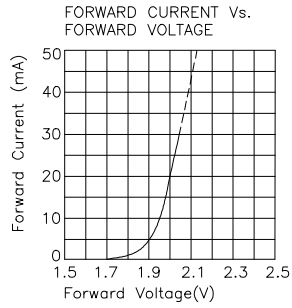
Parameter	High Efficiency Red	Blue	Super Bright Green	Units
Total Power Dissipation[2]	200			mW
Power dissipation	75	135	62.5	mW
DC Forward Current	30	30	25	mA
Peak Forward Current [1]	160	150	140	mA
Reverse Voltage	5			V
Operating/Storage Temperature	- 40°C To + 85°C			

Notes:

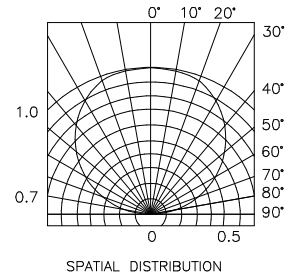
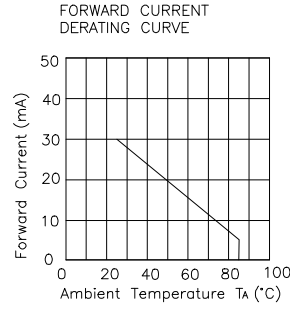
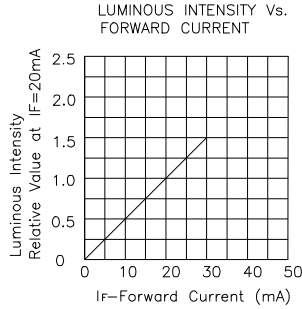
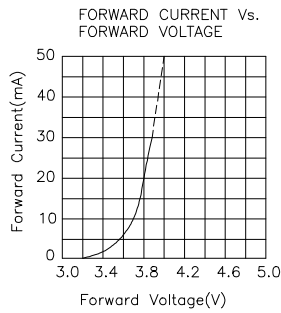
- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Within 200mW at all chips are lightened.



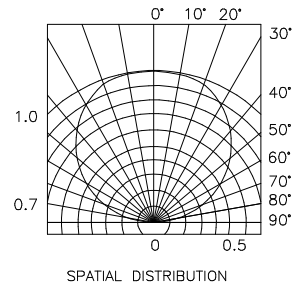
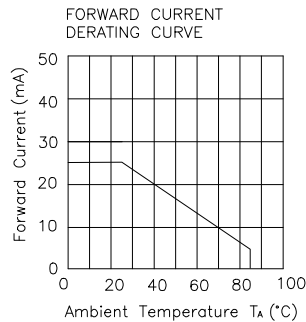
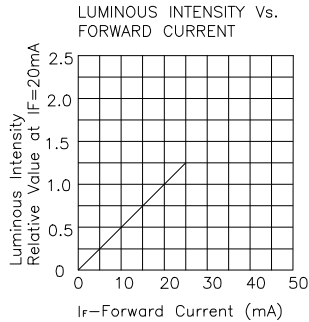
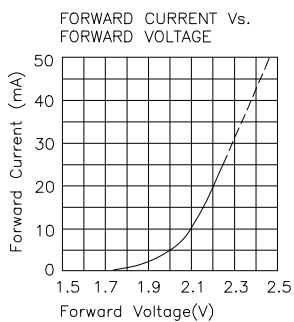
EAA3528EMBSGC High Efficiency Red



Blue



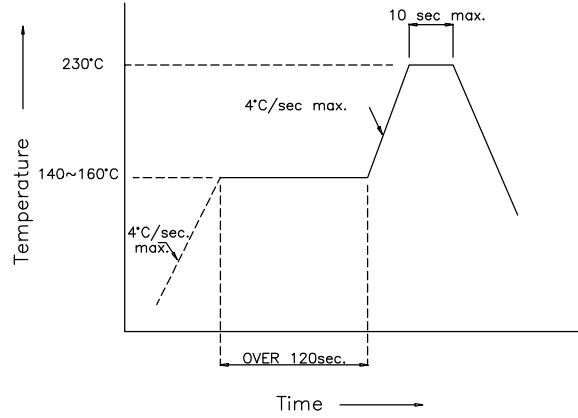
Super Bright Green



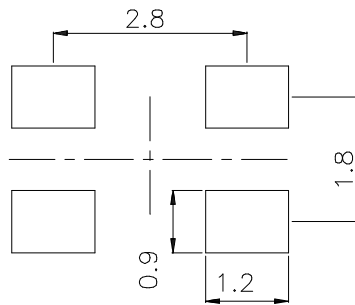
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SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)

