



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AAA3528EMBSGC

High Efficiency Red
Blue
Super Bright Green

Features

- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

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.

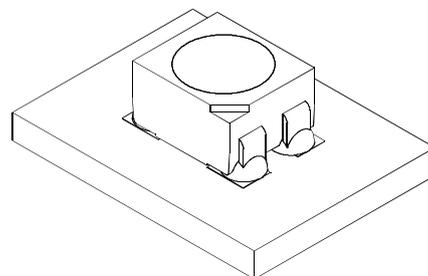
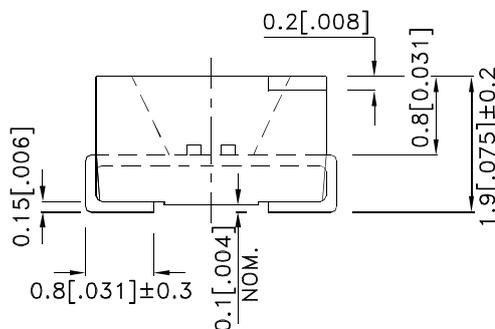
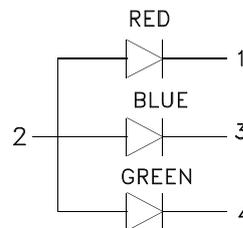
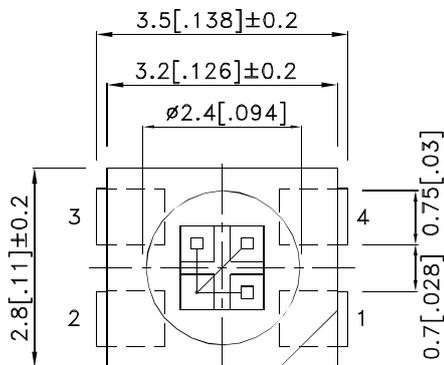
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subjected to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AAA3528EMBSGC	High Efficiency Red (GaAsP/GaP)	WATER CLEAR	10	30	120°
	Blue (GaN)		4	20	
	Super Bright Green (GaP)		4	20	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Blue Super Bright Green	627 430 565		nm	If=20mA
λD [1]	Dominant Wavelength	High Efficiency Red Blue Super Bright Green	625 466 568		nm	If=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red Blue Super Bright Green	45 60 30		nm	If=20mA
C	Capacitance	High Efficiency Red Blue Super Bright Green	15 100 15		pF	Vf=0V;f=1MHz
Vf [2]	Forward Voltage	High Efficiency Red Blue Super Bright Green	2 3.8 2.2	2.5 4.5 2.5	V	If=20mA
Ir	Reverse Current	High Efficiency Red Blue Super Bright Green		10 10 10	uA	Vr=5V

Notes:

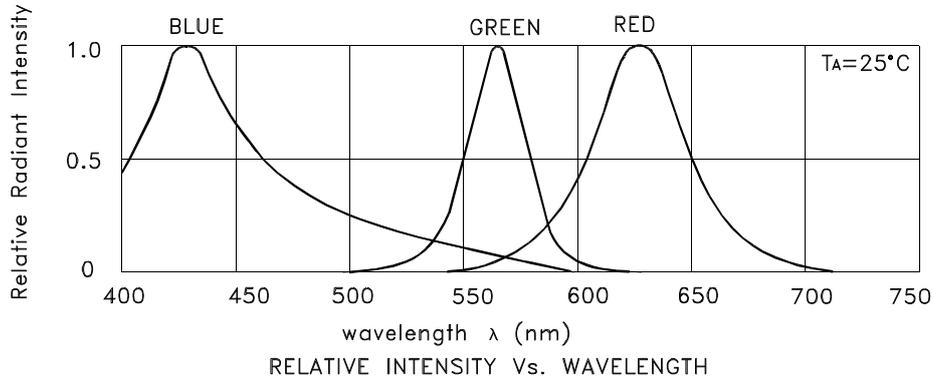
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

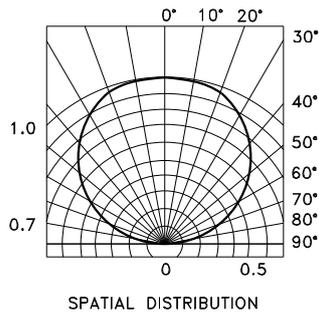
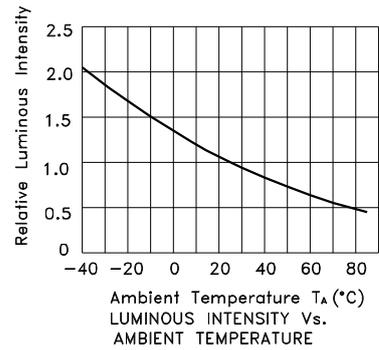
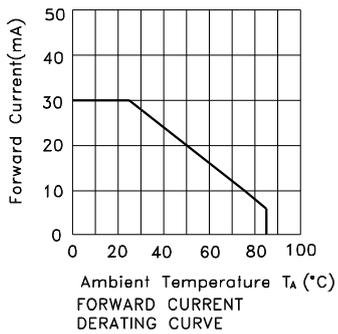
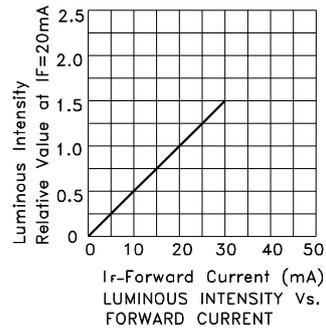
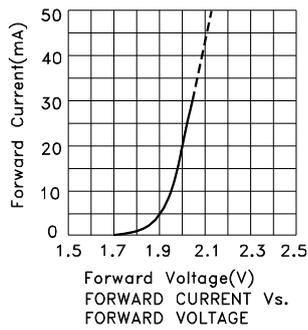
Parameter	High Efficiency Red	Blue	Super Bright Green	Units
Power dissipation	75	135	62.5	mW
DC Forward Current	30	30	25	mA
Peak Forward Current [1]	160	150	140	mA
Reverse Voltage	5			V
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

Note:

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

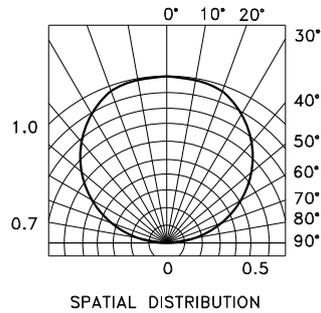
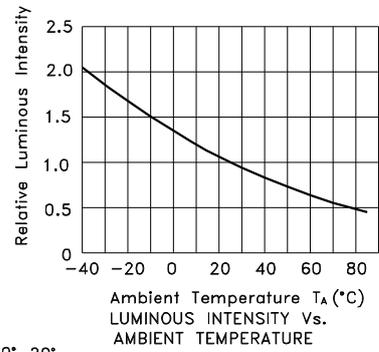
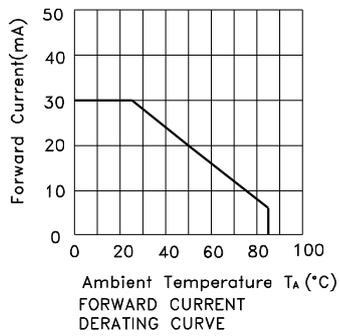
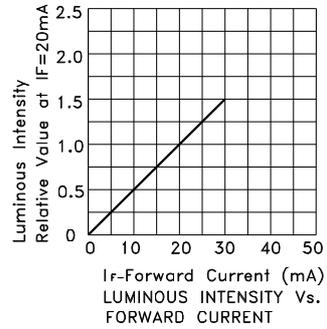
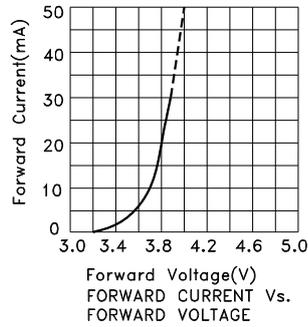


AAA3528EMBSGC High Efficiency Red

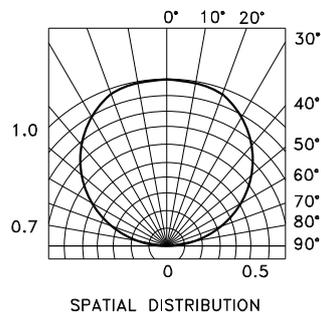
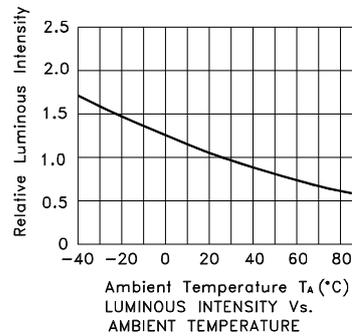
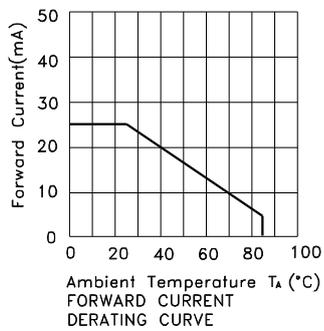
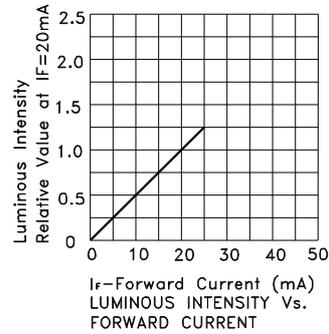
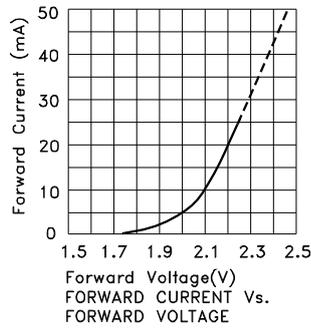


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Blue

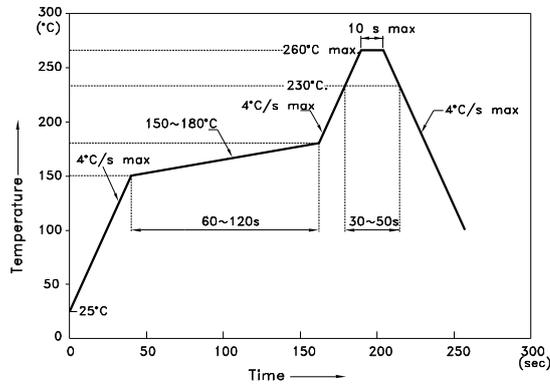


Super Bright Green



AAA3528EMBSGC

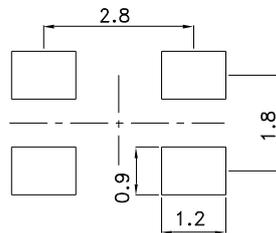
Reflow Soldering Profile For Lead-free SMT Process.



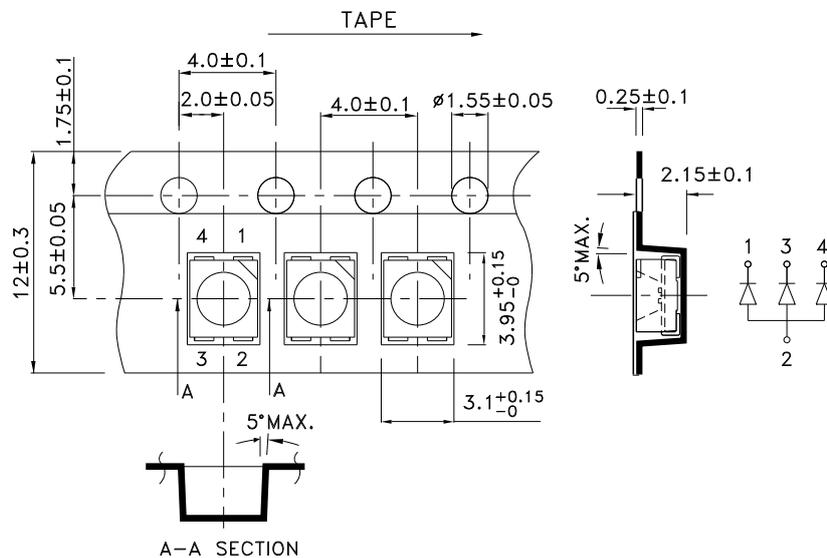
NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



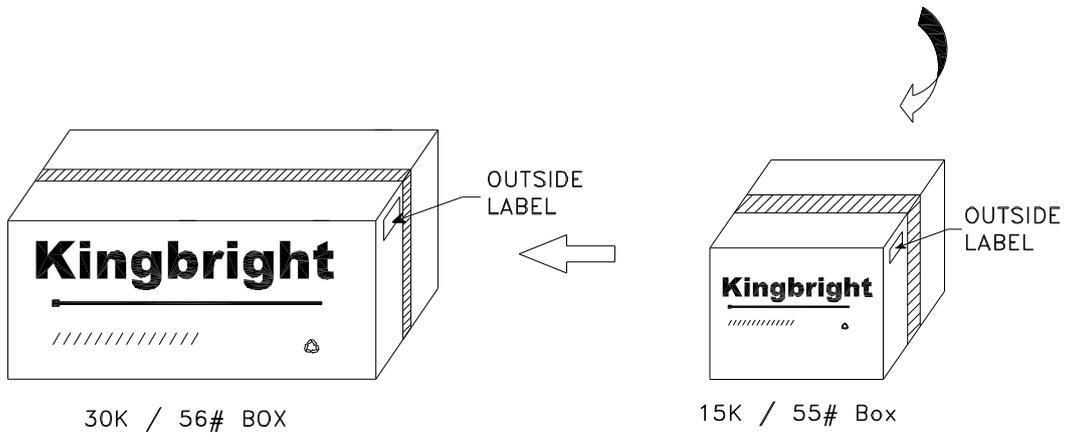
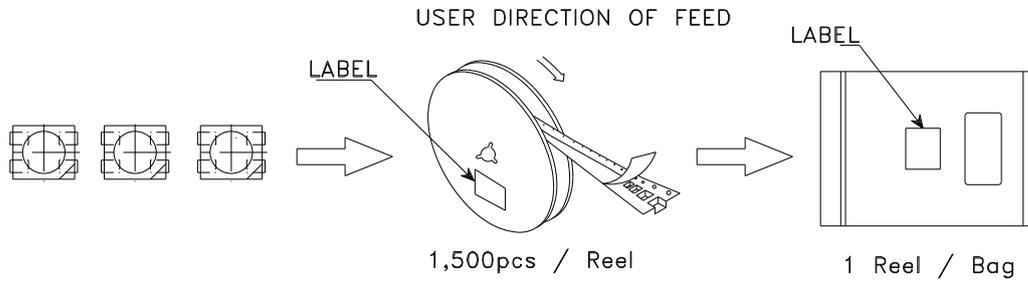
Tape Specifications (Units : mm)



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PACKING & LABEL SPECIFICATIONS

AAA3528EMBSGC



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P/NO: AAA3528XXX	
QTY: 1,500 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 <small>XXXXXXXXXXXXXXXXXXXX</small>	
RoHS Compliant	