

AAA3528ESGC

AAA3528SURKSGC

### Features

- BOTH CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.

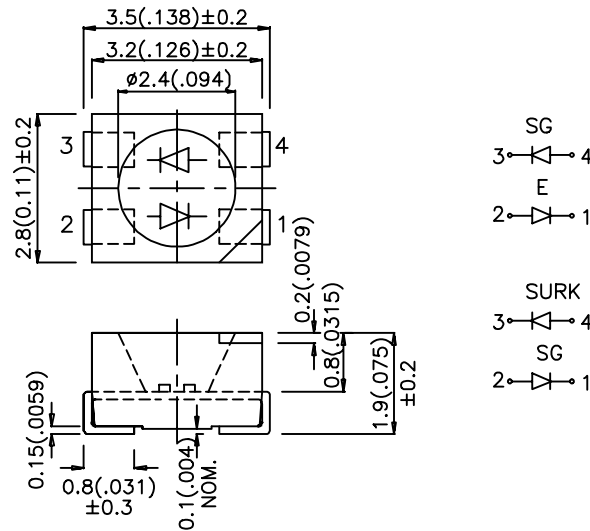
### Description

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

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

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±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.	2θ1/2
AAA3528ESGC	HIGH EFFICIENCY RED (GaAsP/GaP)	WATER CLEAR	12	30	120°
	SUPER BRIGHT GREEN (GaP)		12	30	
AAA3528SURKSGC	HYPER RED(InGaAlP)	WATER CLEAR	80	200	120°
	SUPER BRIGHT GREEN (GaP)		12	30	

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<sub>A</sub>=25°C

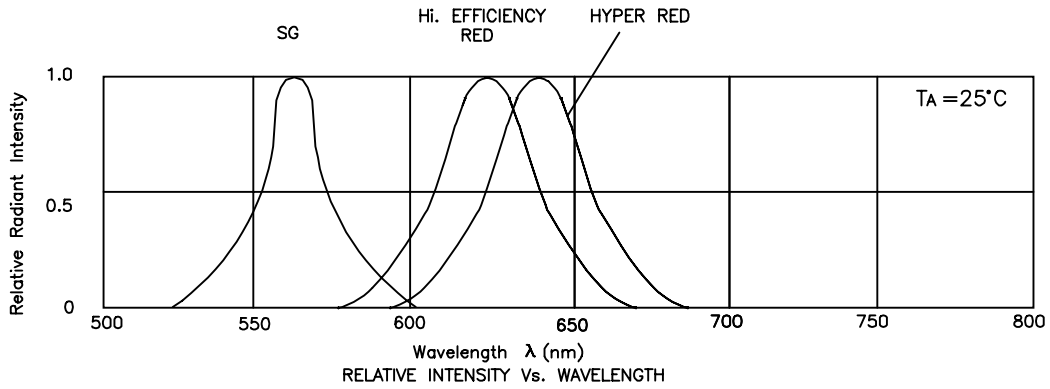
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Super Bright Green Hyper Red	625 565 640		nm	IF=20mA
Δλ <sub>1/2</sub>	Spectral Line Halfwidth	High Efficiency Red Super Bright Green Hyper Red	45 30 25		nm	IF=20mA
C	Capacitance	High Efficiency Red Super Bright Green Hyper Red	12 45 35		pF	VF=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	High Efficiency Red Super Bright Green Hyper Red	2.0 2.2 2.0	2.5 2.5 2.2	V	IF=20mA
I <sub>R</sub>	Reverse Current	All		10	μA	VR = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

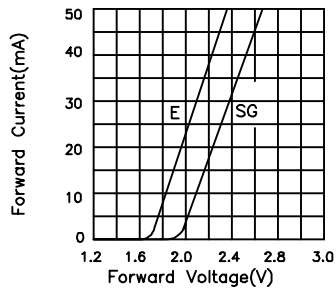
Parameter	High Efficiency Red	Super Bright Green	Hyper Red	Units
Power dissipation	105	105	170	mW
DC Forward Current	30	25	50	mA
Peak Forward Current [1]	150	150	150	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			

Note:

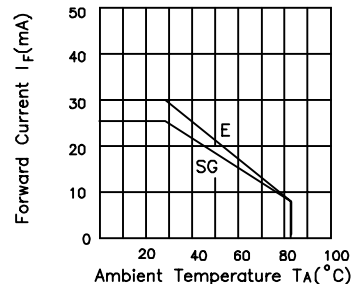
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



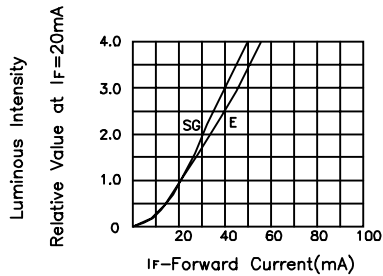
## High Efficiency Red / Super Bright Green AAA3528ESGC



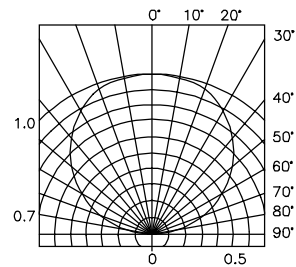
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

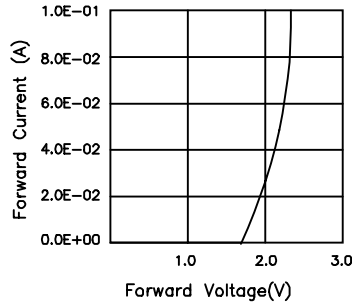


LUMINOUS INTENSITY Vs. FORWARD CURRENT

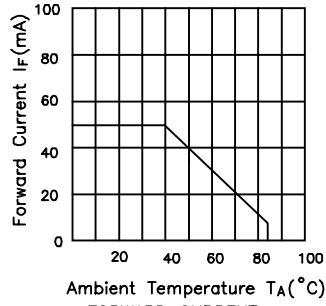


SPATIAL DISTRIBUTION

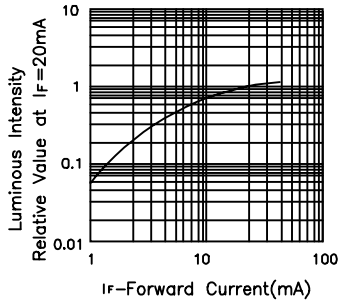
## AAA3528SURKSGC Hyper Red / Super Bright Green



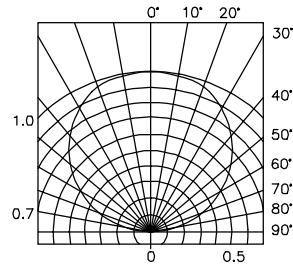
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

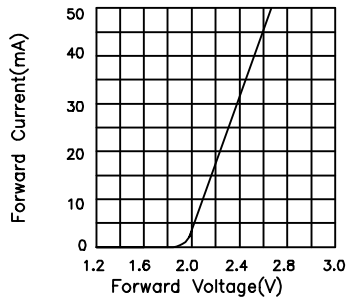


LUMINOUS INTENSITY Vs. FORWARD CURRENT

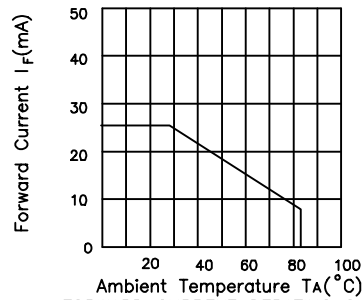


SPATIAL DISTRIBUTION

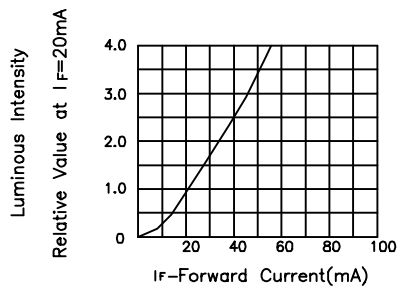
## Super Bright Green



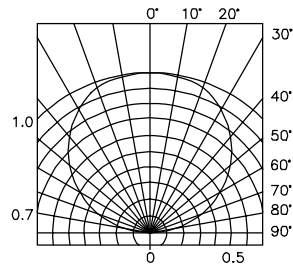
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

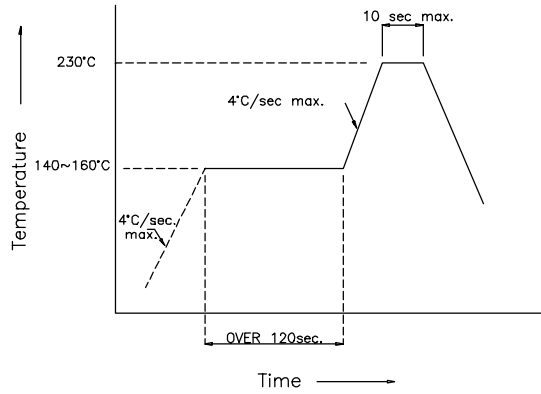


LUMINOUS INTENSITY Vs. FORWARD CURRENT

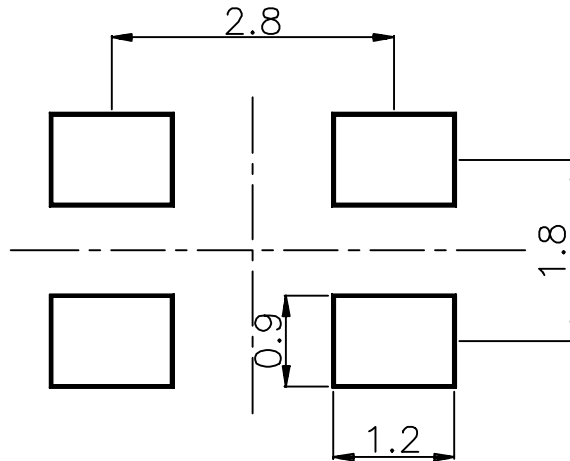


SPATIAL DISTRIBUTION

## AAA3528BI-COLOR SERIES SMT Reflow Soldering Instruction



## AAA3528BI-COLOR SERIES Recommended Soldering Pattern (Units : mm)



**AAA3528BI-COLOR SERIES Tape Specifications**  
 (Units : mm)

