

AAA3528SURKVGPB

HYPER RED

GREEN

BLUE

### Features

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

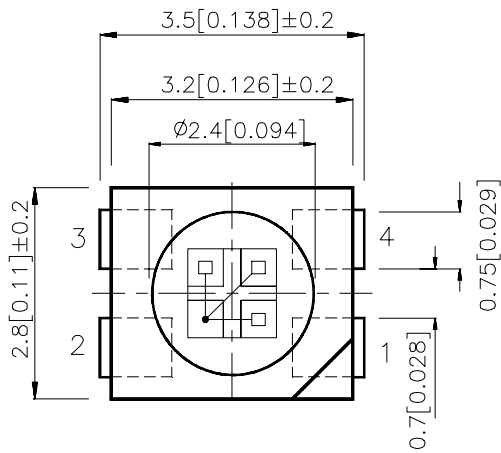
### Description

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

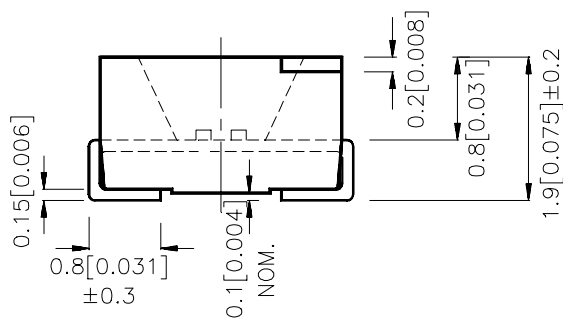
The Green source color devices are made with InGaN on SiC Light Emitting Diode.

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

### Package Dimensions



- 1 CATHODE RED(SURK)
- 2 COMMON ANODE
- 3 CATHODE GREEN(VG)
- 4 CATHODE BLUE(PB)



#### 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.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
AAA3528SURKVGPB	HYPER RED ( InGaAlP )	WATER CLEAR	70	200	120°
	GREEN ( InGaN )		70	170	
	BLUE ( InGaN )		36	70	

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

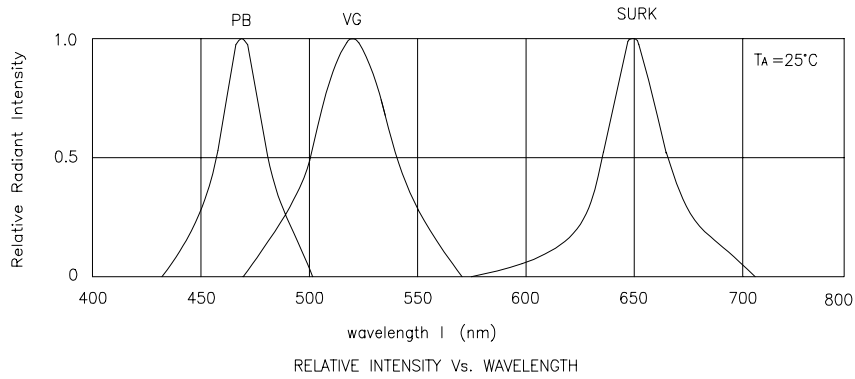
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Hyper Red Green Blue	650 520 468		nm	I <sub>F</sub> = 20mA
λ <sub>D</sub>	Dominate Wavelength	Hyper Red Green Blue	635 525 470		nm	I <sub>F</sub> = 20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	Hyper Red Green Blue	28 38 25		nm	I <sub>F</sub> = 20mA
C	Capacitance	Hyper Red Green Blue	35 45 65		pF	V <sub>F</sub> = 0V; f = 1MHz
V <sub>F</sub>	Forward Voltage	Hyper Red Green Blue	1.95 4.0 3.65	2.5 4.5 4.2	V	I <sub>F</sub> = 20mA
I <sub>R</sub>	Reverse Current	All		10	uA	V <sub>R</sub> = 5V

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

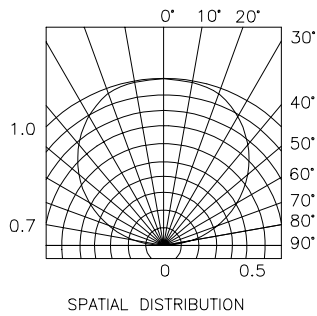
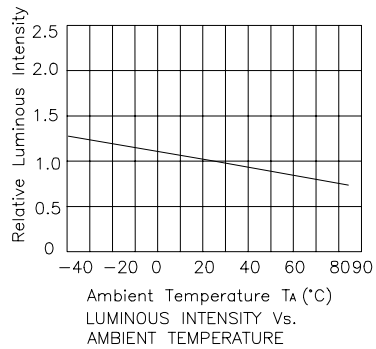
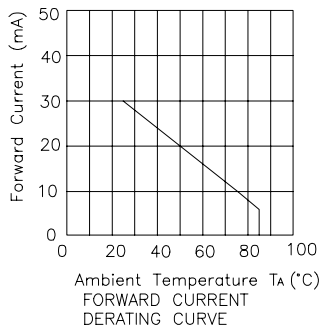
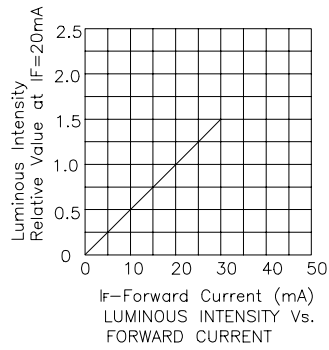
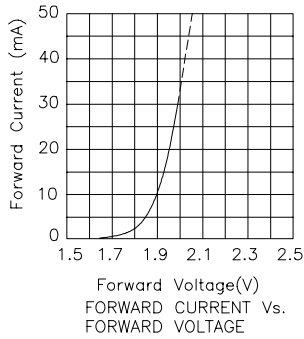
Parameter	Hyper Red	Green	Blue	Units
Power dissipation	170	105	102	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	160	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			

Note:

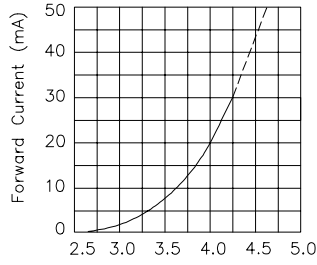
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



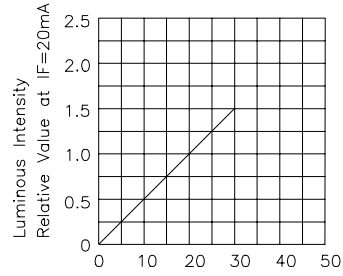
## AAA3528SURKVGPB Hyper Red



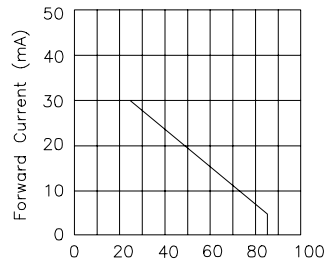
## Green



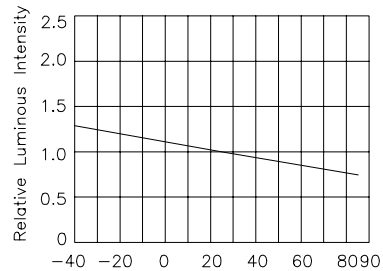
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



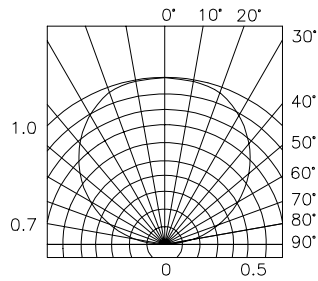
IF-Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature TA (°C)  
FORWARD CURRENT  
DERATING CURVE

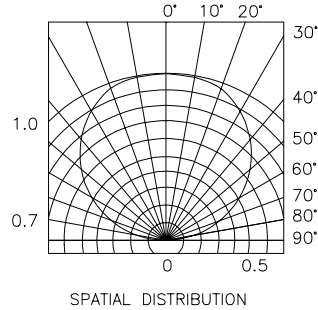
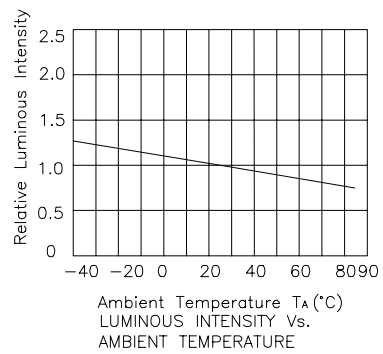
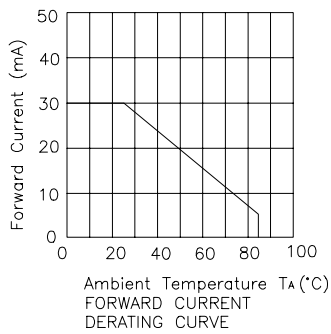
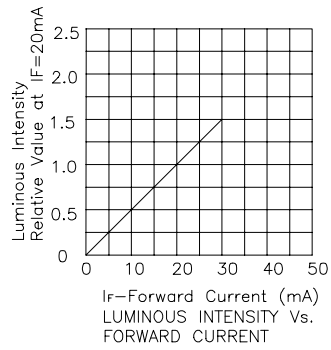
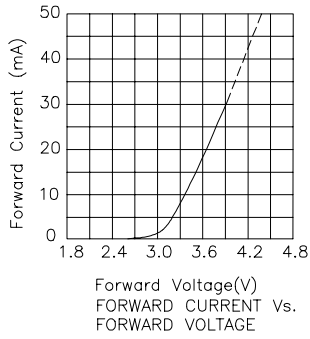


Ambient Temperature TA (°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE



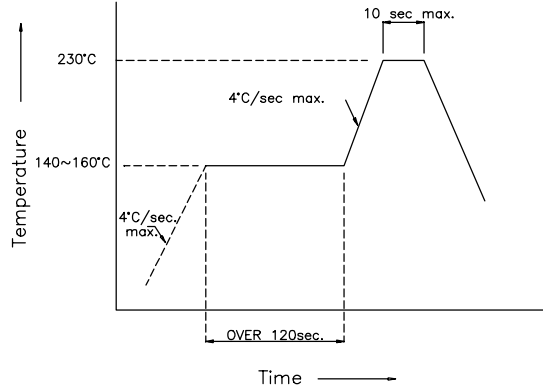
SPATIAL DISTRIBUTION

## Blue

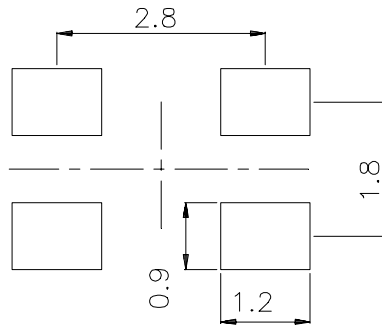


## AAA3528SURKVGPB SMT Reflow Soldering Instruction

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)

