



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

KAA-3528SURKVGPBC

HYPER RED
GREEN
BLUE

Features

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

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.

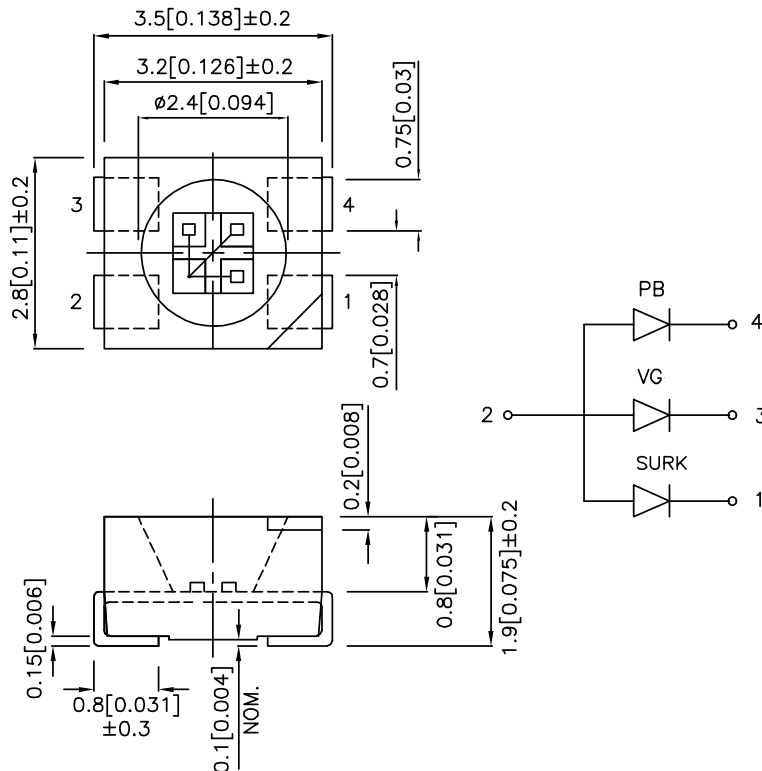
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

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.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
KAA-3528SURKVGPBC	HYPER RED (InGaAlP)	WATER CLEAR	70	200	120°
	GREEN (InGaN)		70	200	
	BLUE (InGaN)		36	70	

Note:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

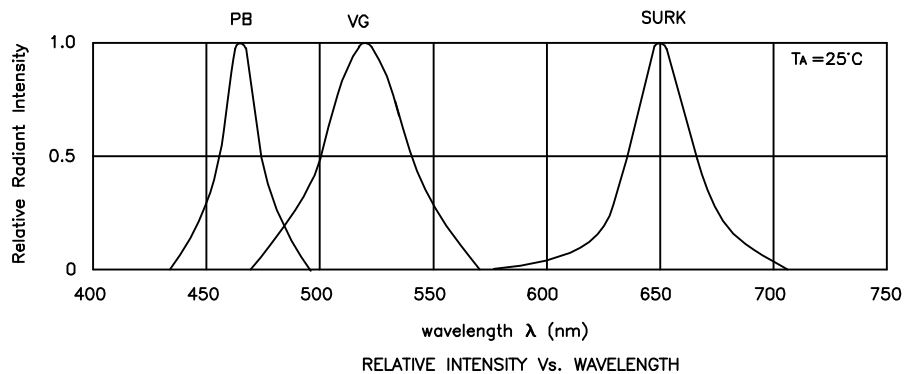
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Hyper Red Green Blue	650 520 468		nm	IF=20mA
λ_D	Dominant Wavelength	Hyper Red Green Blue	635 525 470		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Red Green Blue	28 38 25		nm	IF=20mA
C	Capacitance	Hyper Red Green Blue	35 45 65		pF	VF=0V;f=1MHz
VF	Forward Voltage	Hyper Red Green Blue	1.95 3.5 3.65	2.5 4.5 4.2	V	IF=20mA
IR	Reverse Current	All		10	uA	VR= 5V

Absolute Maximum Ratings at TA=25°C

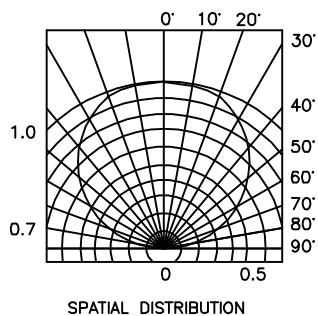
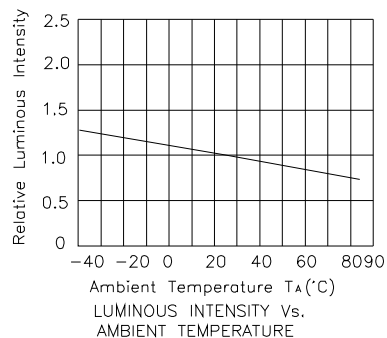
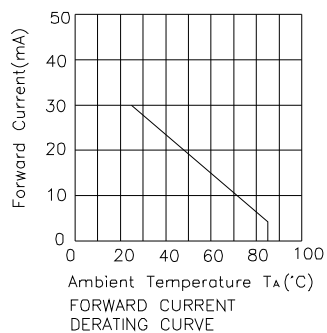
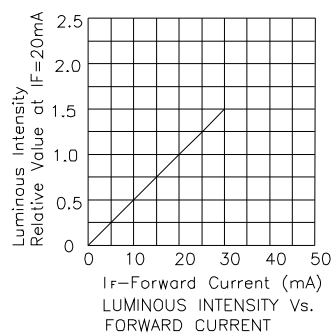
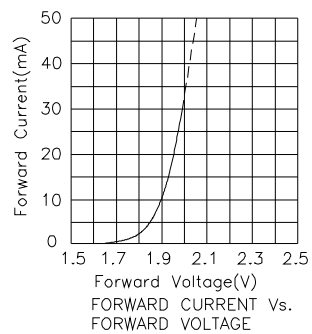
Parameter	Hyper Red	Green	Blue	Units
Power dissipation	75	135	126	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	160	mA
Reverse Voltage	5			V
Operating/Storage Temperature	-40°C TO +85°C			

Note:

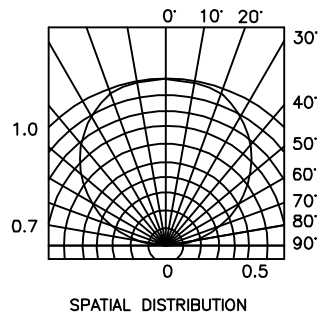
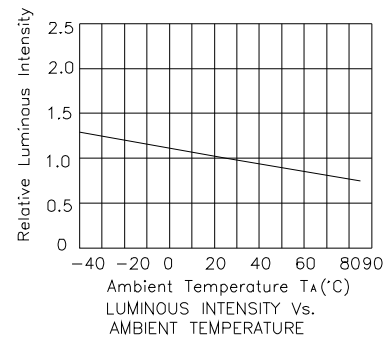
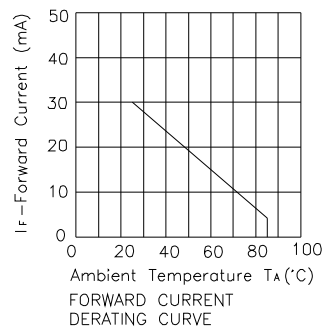
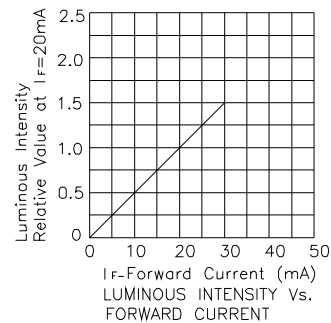
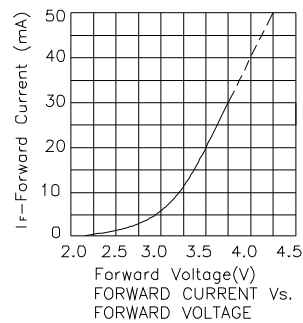
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



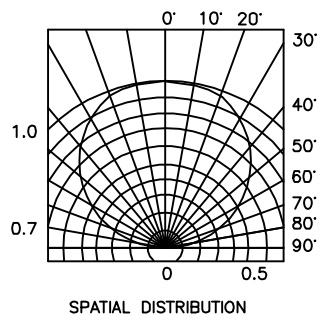
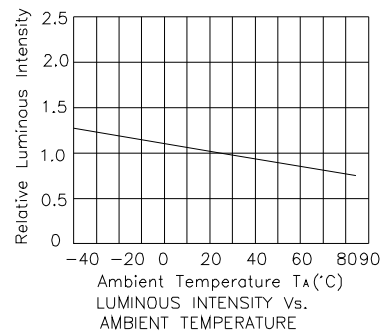
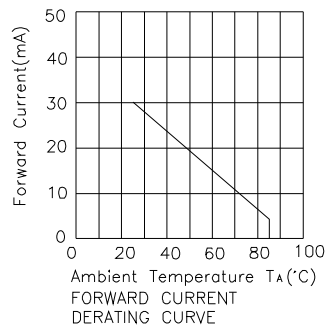
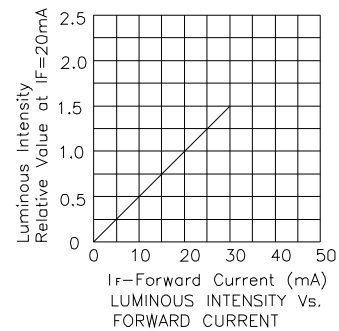
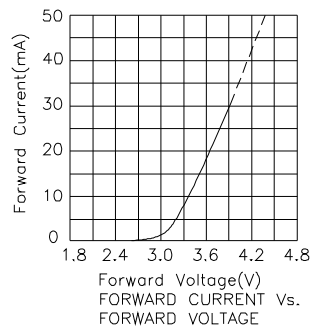
KAA-3528SURKVGPBC Hyper Red



Green

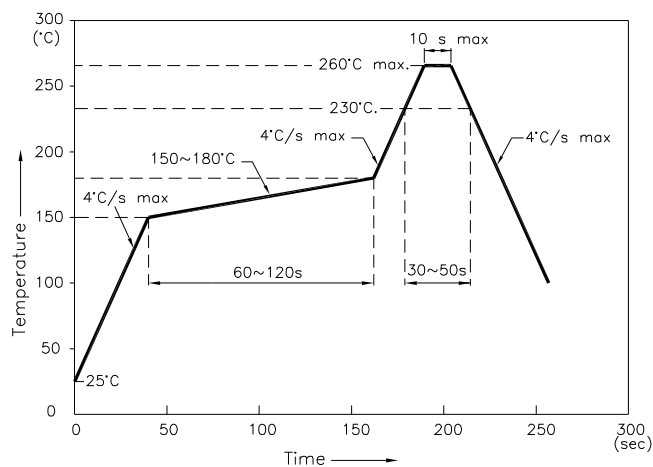


Blue



KAA-3528SURKVG PBC

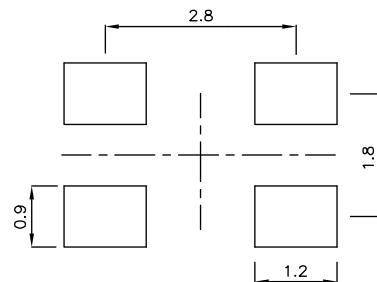
Reflow Soldering Profile For Lead-free SMT Process.



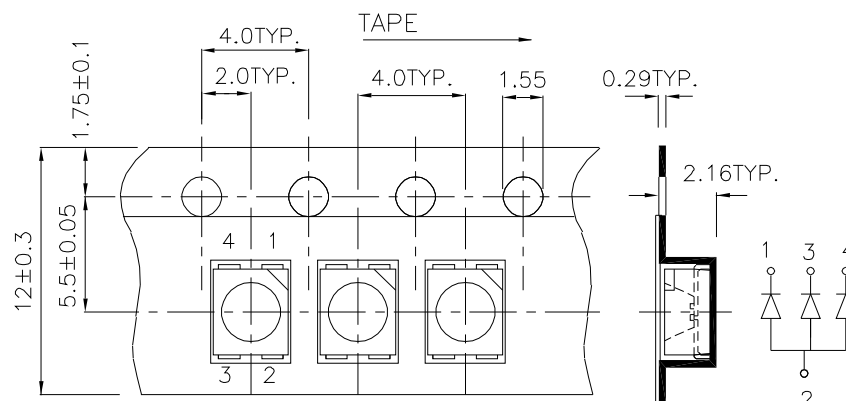
NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$. 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)



Tape Specifications (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.