

1.6x0.8x0.5mm BI-COLOR SURFACE MOUNT



ATTENTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE **DEVICES**

Part Number: APHB1608ZGSURKC

Green Hyper Red

Features

- 1.6mmX0.8mm SMT LED, 0.5mm thickness.
- · Compatible with reflow soldering
- Available in various color combination
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- · RoHS compliant.

Description

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

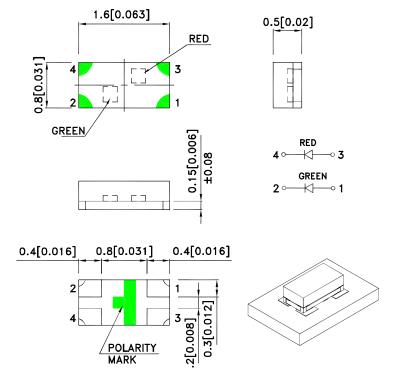
The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

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





- 1. All dimensions are in millimeters (inches).
 2. Tolerance is ±0.15(0.006") unless otherwise noted.
 3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 4. The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		,,	Min.	Тур.	201/2
APHB1608ZGSURKC	Green (InGaN)	WATER CLEAR	180	350	- 130°
	Hyper Red (AlGaInP)	WATER CLEAR	110	230	

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

 2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green Hyper Red	515 650		nm	I==20mA
λD [1]	Dominant Wavelength	Green Hyper Red	525 630		nm	I==20mA
Δλ1/2	Spectral Line Half-width	Green Hyper Red	30 28		nm	I==20mA
С	Capacitance	Green Hyper Red	45 35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green Hyper Red	3.3 1.95	4.1 2.5	V	I=20mA
lR	Reverse Current	Green Hyper Red		50 10	uA	V _R = 5V

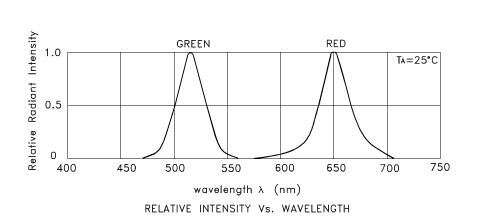
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

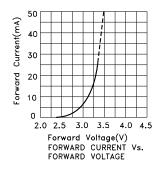
Parameter	Green	Hyper Red	Units		
Power dissipation	102.5	75	mW		
DC Forward Current	25	30	mA		
Peak Forward Current [1]	150	185	mA		
Reverse Voltage		V			
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

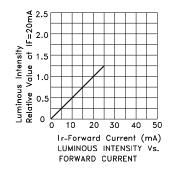
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

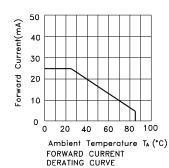
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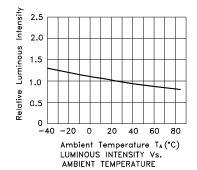


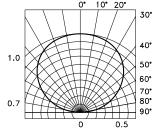
APHB1608ZGSURKC Green











0.7

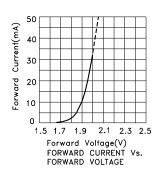
O 0.5

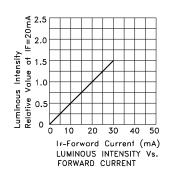
SPATIAL DISTRIBUTION

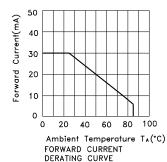
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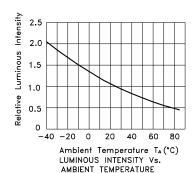
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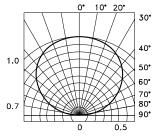












SPATIAL DISTRIBUTION

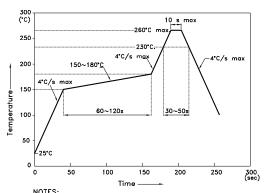
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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



NOTES:

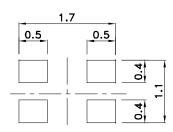
1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

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.

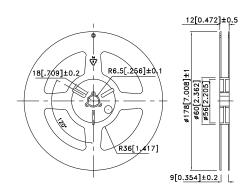
Recommended Soldering Pattern

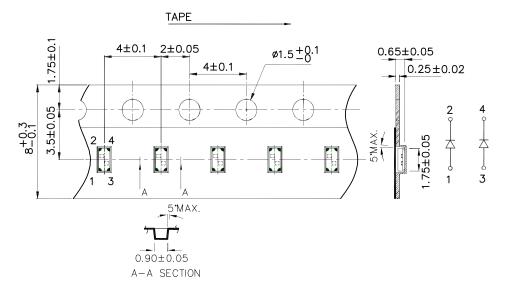
(Units : mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)

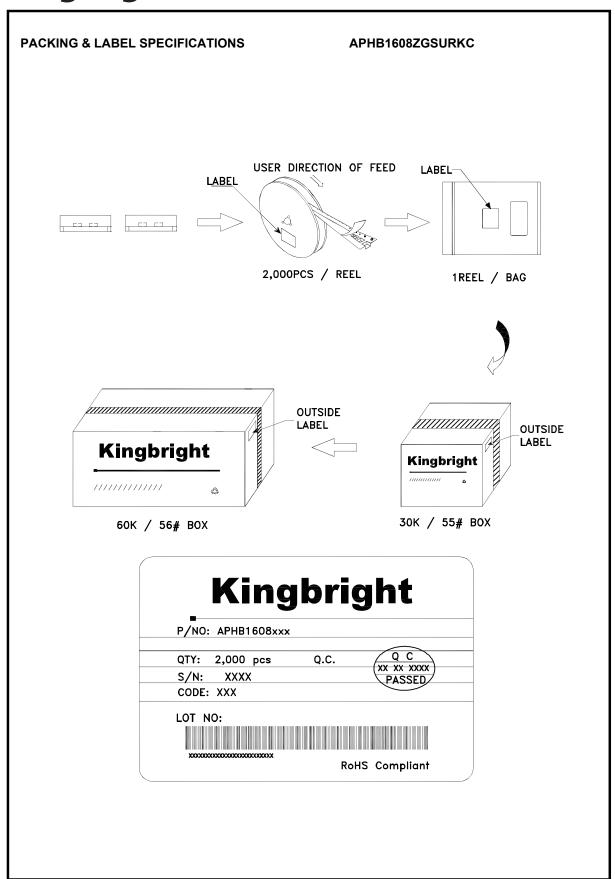
Reel Dimension





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