

1.6x1.5mm BI-COLOR SMD CHIP LED LAMP

Part Number: APTB1615SURKCGKC-F01

Hyper Red Green

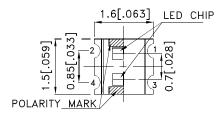
Features

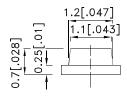
- 1.6mmx1.5mm SMT LED, 0.7mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

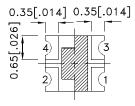
Descriptions

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

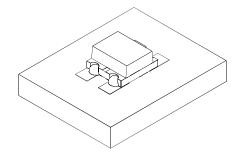
Package Dimensions











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.2 (0.008")$ unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.

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REV NO: V.9A CHECKED: Allen Liu **DATE: JAN/08/2015** DRAWN: Q.M.Chen

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Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APTB1615SURKCGKC-F01	Hyper Red (AlGaInP)	Water Clear	120	200	- 120°
			*40	*80	
	Green (AlGalnP)		20	50	
			*20	*50	

Notes:

- $1. \theta 1/2$ is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- Luminous intensity/ luminous Flux: +/-15%.
 Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Green	645 574		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Green	28 20		nm	IF=20mA
С	Capacitance	Hyper Red Green	35 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Green	1.95 2.1	2.5 2.5	V	IF=20mA
lR	Reverse Current	Hyper Red Green		10 10	uA	V _R = 5V

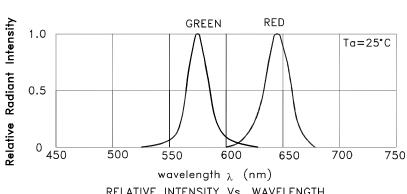
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- Wavelength value is traceable to the CIE127-2007 compliant national standards.
 Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

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

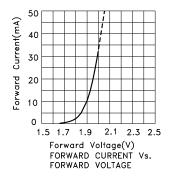
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

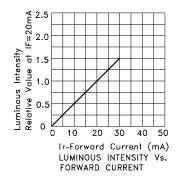
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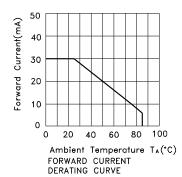


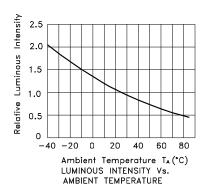
RELATIVE INTENSITY Vs. WAVELENGTH

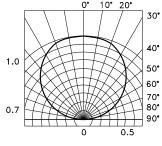
APTB1615SURKCGKC-F01 **Hyper Red**











SPATIAL DISTRIBUTION

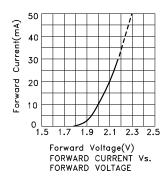
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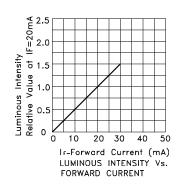
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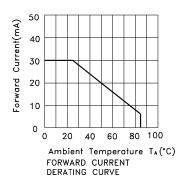
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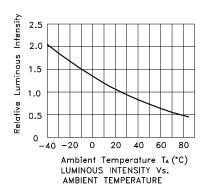
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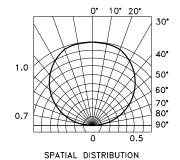
Green







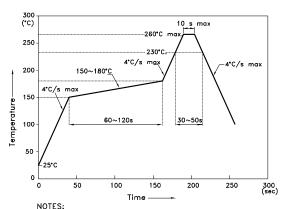




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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



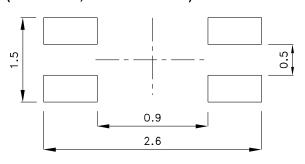
- NOTES:

 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.

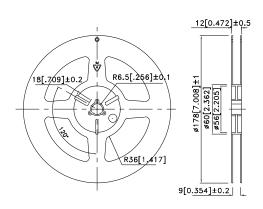
 3.Number of reflow process shall be 2 times or less.

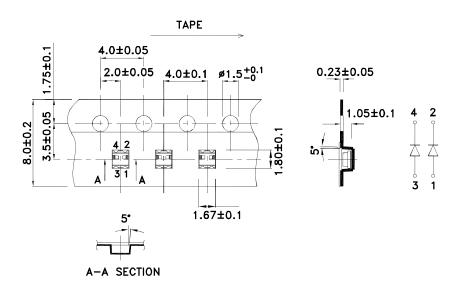
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units: mm)

Reel Dimension





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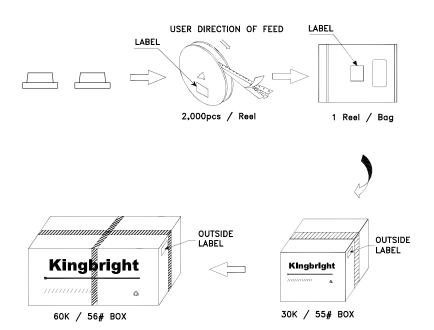
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PACKING & LABEL SPECIFICATIONS

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