

Part Number: APBDA3020SURKCGKC-GX

Hyper Red
Green

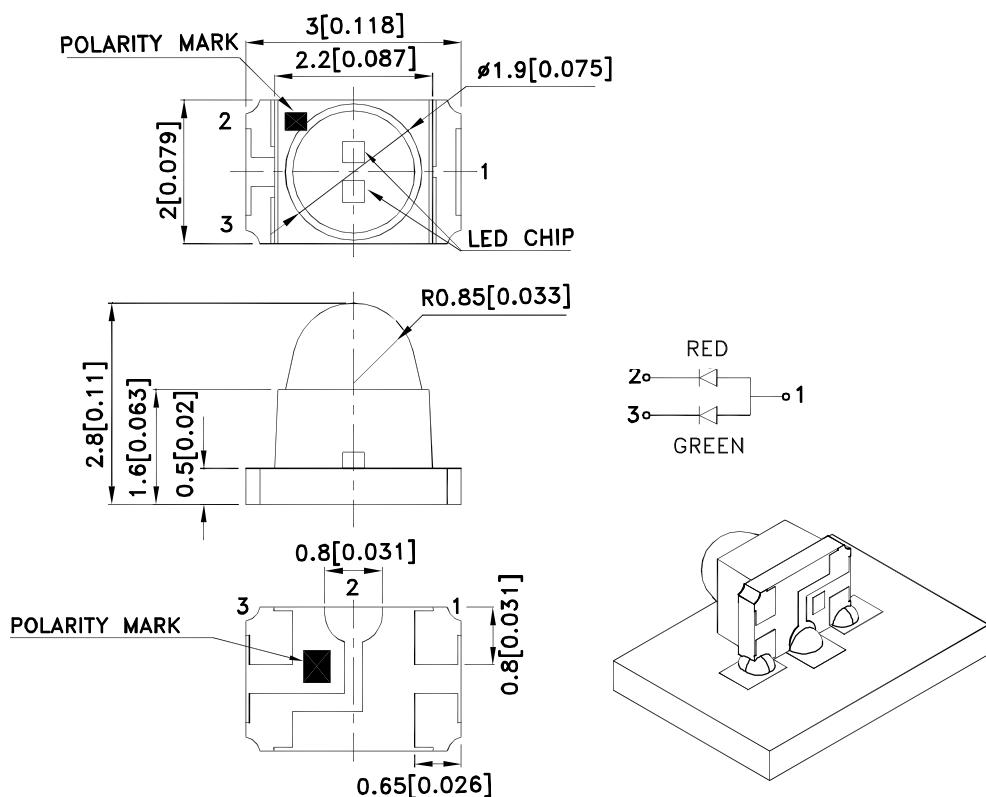
Features

- 3.0mmx2.0mm SMT LED, 2.8mm thickness.
- Low power consumption.
- Ideal for back light and indicator
- Package : 2000pcs / reel.
- When soldered in the sideview configuration, the maximum shear tolerance of the epoxy lens is 300g.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability
- RoHS compliant.

Descriptions

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

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.2(0.008")$ 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.



Kingbright

Selection Guide

Part No.	Dice	Lens Type	I _v (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
APBDA3020SURKCGKC-GX	Hyper Red (AlGaInP)	Water Clear	500	900	15°
			*120	*300	
	Green (AlGaInP)		120	300	
			*120	*300	

Notes:

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%.

* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Hyper Red Green	645 574		nm	I _f =20mA
λ_D [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	I _f =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Red Green	28 20		nm	I _f =20mA
C	Capacitance	Hyper Red Green	35 15		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red Green	1.95 2.1	2.5 2.5	V	I _f =20mA
I _R	Reverse Current	Hyper Red Green		10 10	uA	V _R = 5V

Notes:

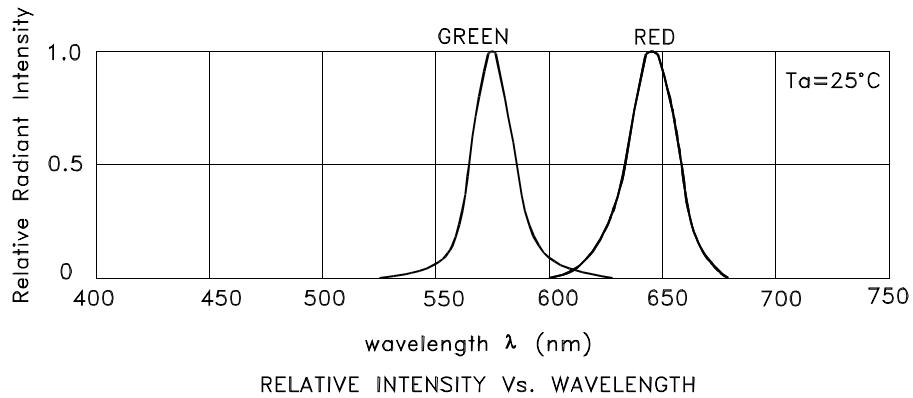
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

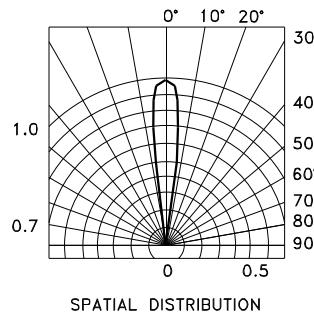
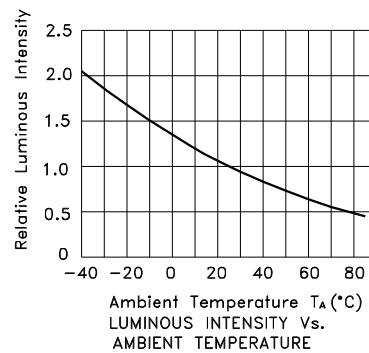
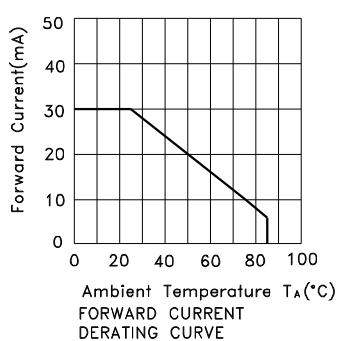
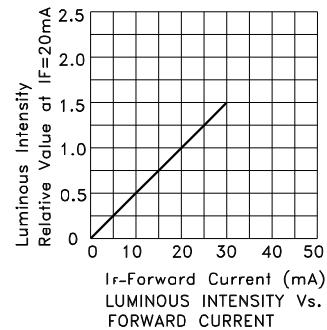
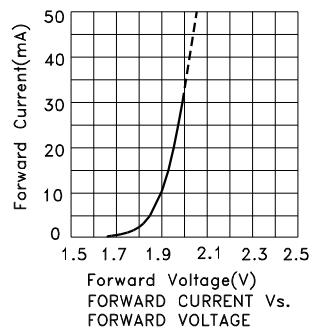
Parameter	Hyper Red	Green	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	185	150	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

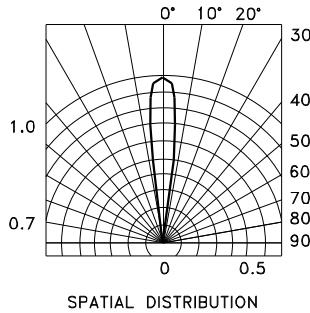
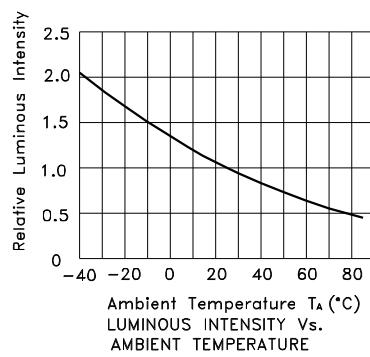
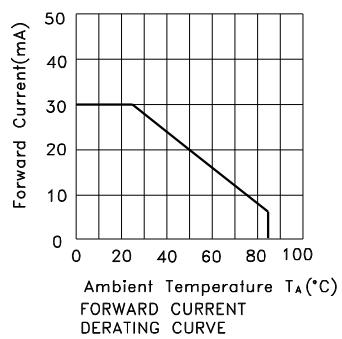
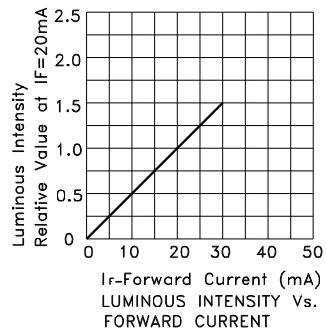
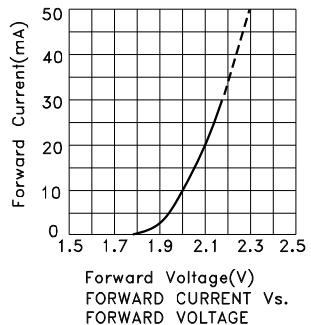
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APBDA3020SURKCGKC-GX
Hyper Red



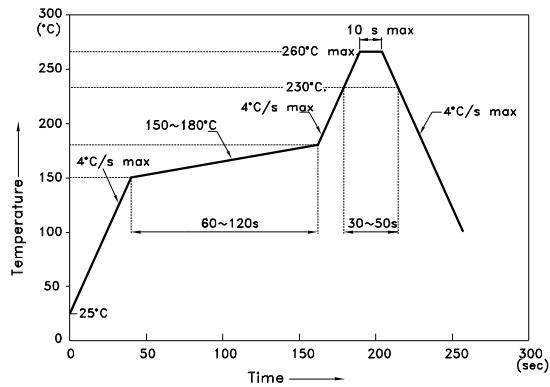
Green



APBDA3020SURKCGKC-GX

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.

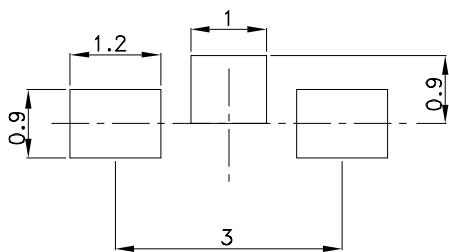
Reflow Soldering Profile For Lead-free SMT Process.



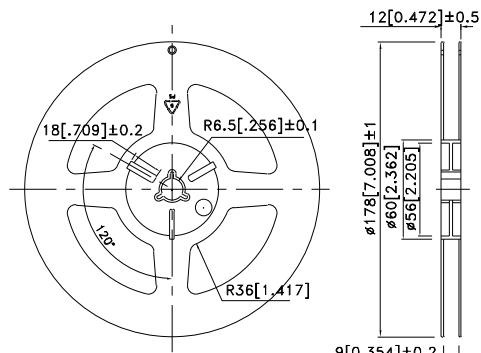
NOTES:

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.

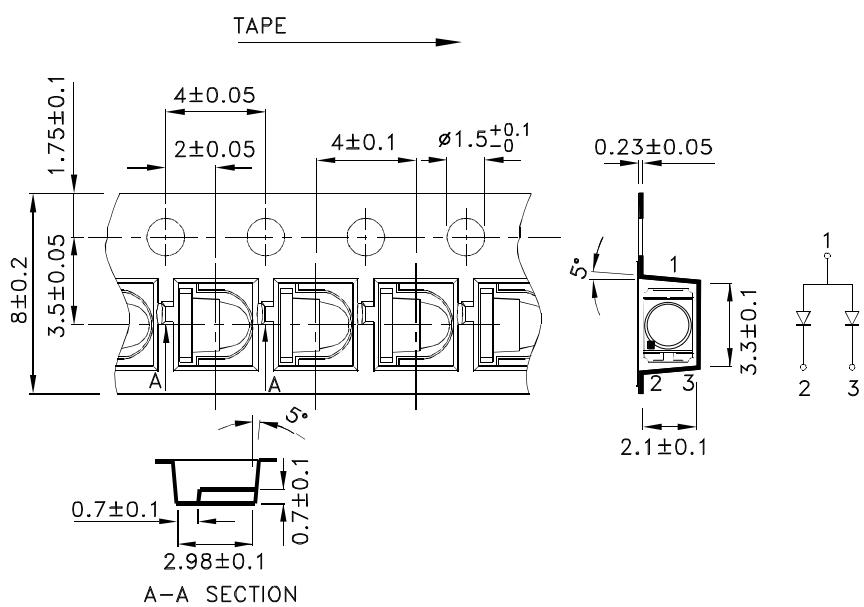
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

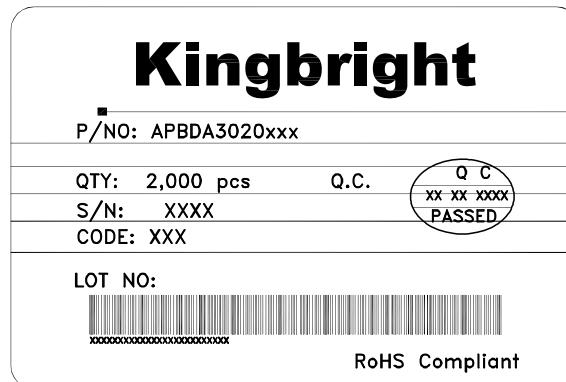
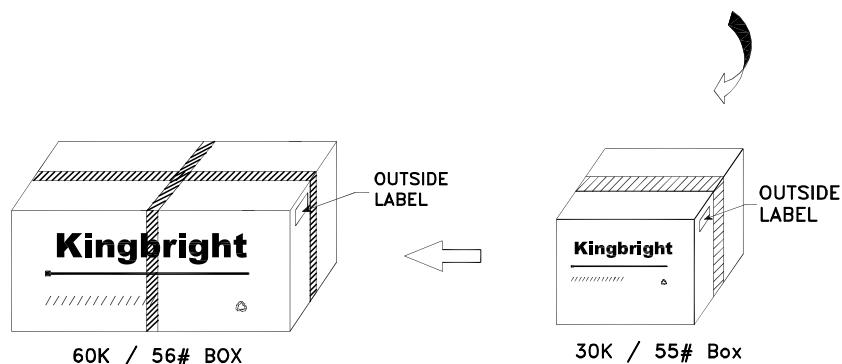
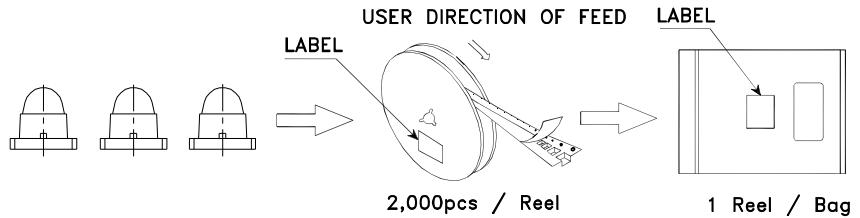


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APBDA3020SURKCGKC-GX



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