

Part Number: APBA3210SURKCGKC-F01

Hyper Red
Green

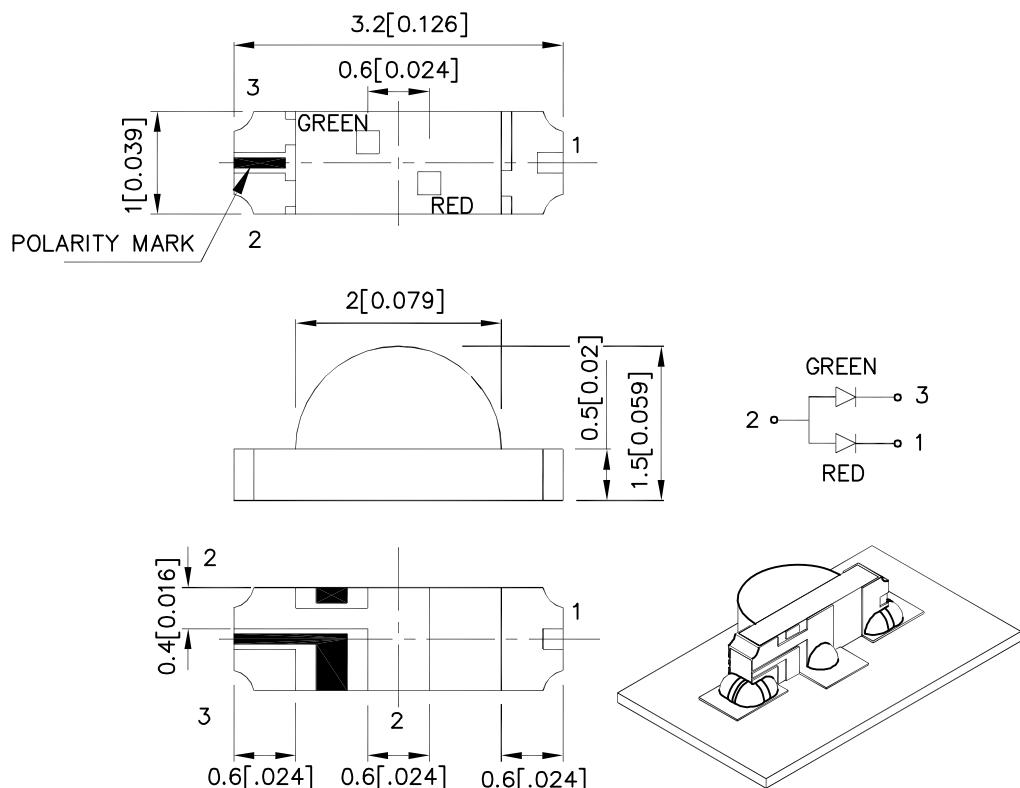
Features

- 3.2mmx1.0mm right angle SMT LED, 1.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Hyper Red source color devices are made with Al-GaInP 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 $\pm 0.1(0.004")$ unless otherwise noted.
3. Specifications are subject to change without 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	I _v (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
APBA3210SURKCGKC-F01	Hyper Red (AlGaInP)	WATER CLEAR	110	200	120°
	Green (AlGaInP)		18	50	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Green	650 574		nm	I _f =20mA
λD [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	I _f =20mA
Δλ1/2	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:

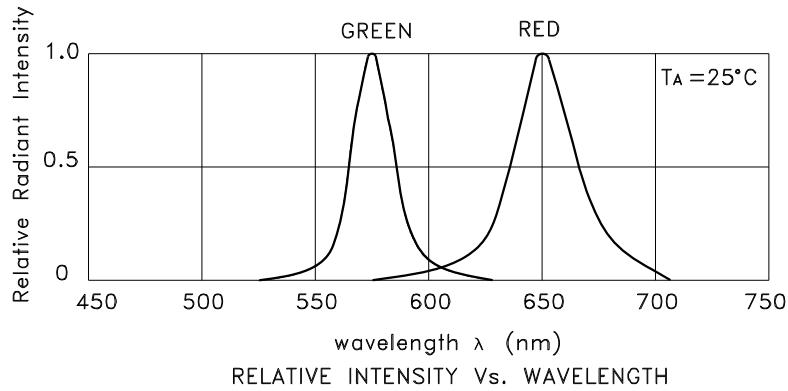
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

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	

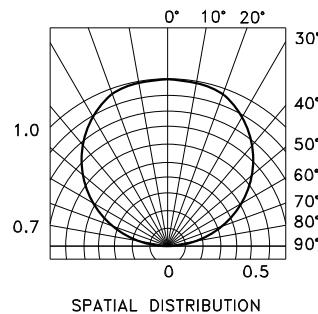
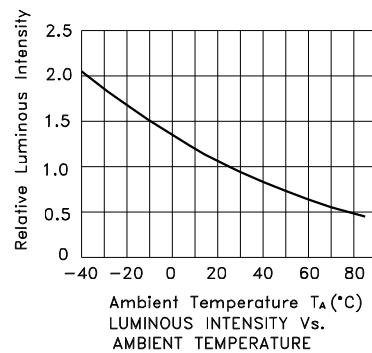
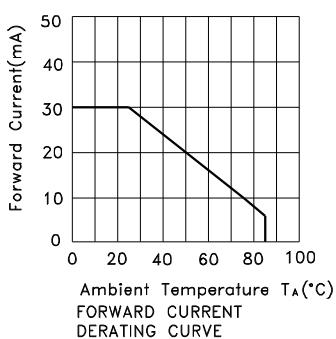
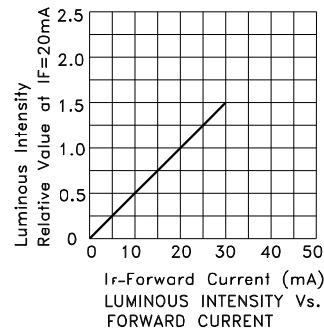
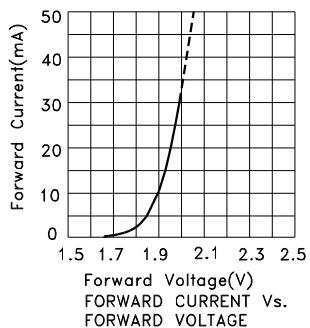
Note:

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

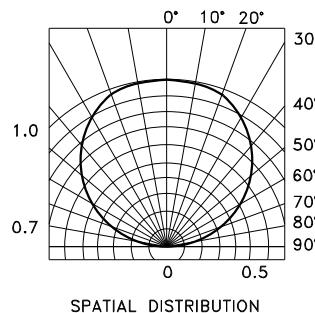
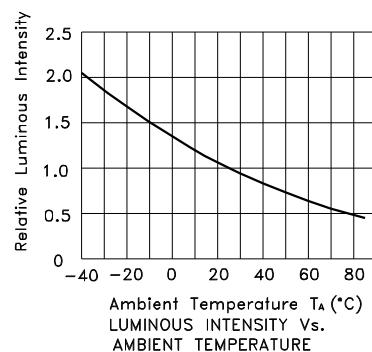
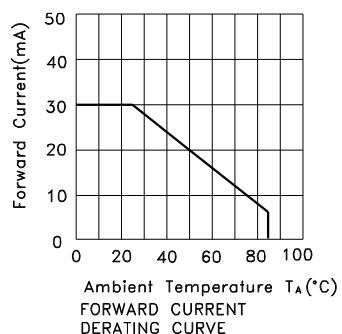
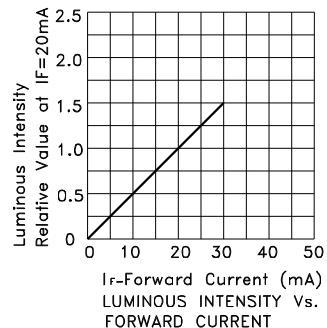
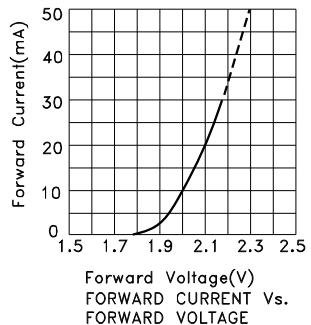


APBA3210SURKCGKC-F01

Hyper Red



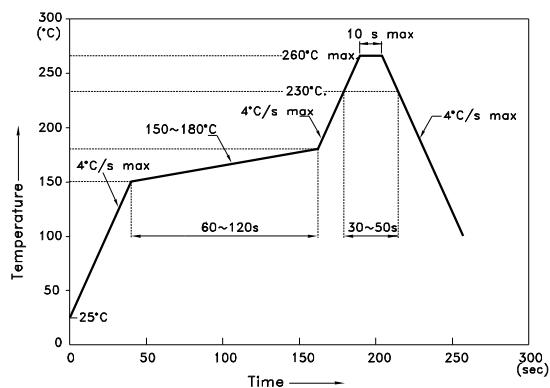
Green



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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.

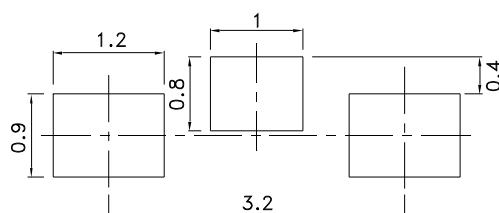
Reflow Soldering Profile For Lead-free SMT Process.



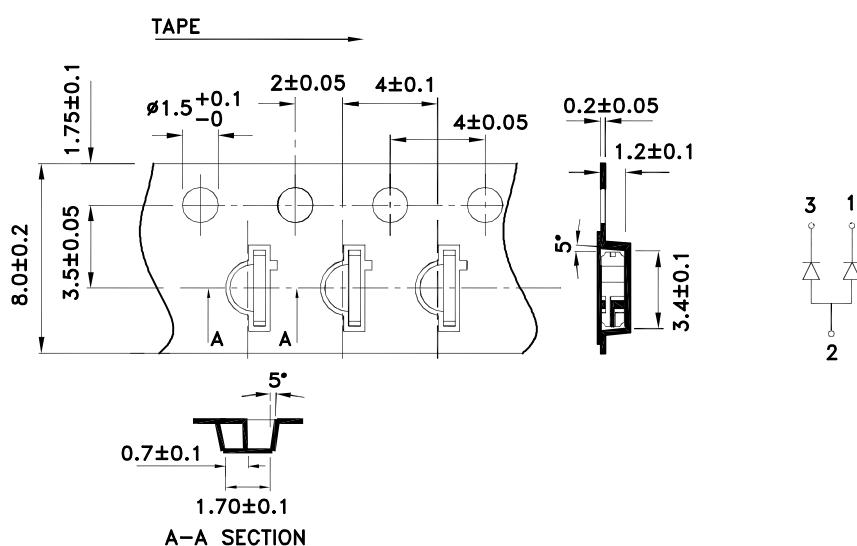
NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (+/- 5^{\circ}\text{C})$. 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; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)



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PACKING & LABEL SPECIFICATIONS

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