

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: APTF3216SEEVGAPBAC

Hyper Orange
Green
Blue

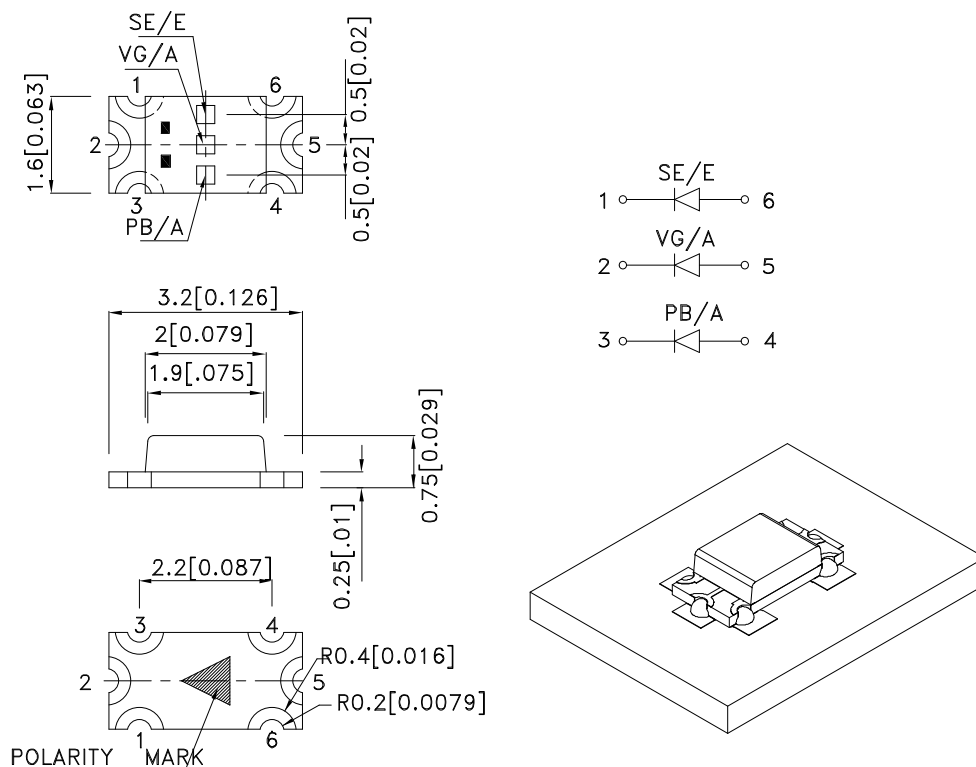
Features

- 3.2mmx1.6mm SMT LED, 0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- ONE BLUE, ONE GREEN AND ONE RED CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

Description

The Hyper Orange source color devices are made with InGaAlP on GaAs substrate Light Emitting Diode.
The Green source color devices are made with InGaN on G-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 ± 0.2 (0.008") unless otherwise noted.
3. Specifications are subjected to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APTF3216SEEVGAPBAC	Hyper Orange (InGaAlP)	WATER CLEAR	110	300	120°
	Green (InGaN)		50	150	
	Blue (InGaN)		18	60	

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
λ _{peak}	Peak Wavelength	Hyper Orange Green Blue	630 520 468		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Hyper Orange Green Blue	621 525 470		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Hyper Orange Green Blue	20 35 21		nm	I _F =20mA
C	Capacitance	Hyper Orange Green Blue	25 100 100		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Orange Green Blue	2 3.2 3.2	2.5 4 4	V	I _F =20mA
I _R	Reverse Current	Hyper Orange Green Blue		10 10 10	uA	V _R =5V

Notes:

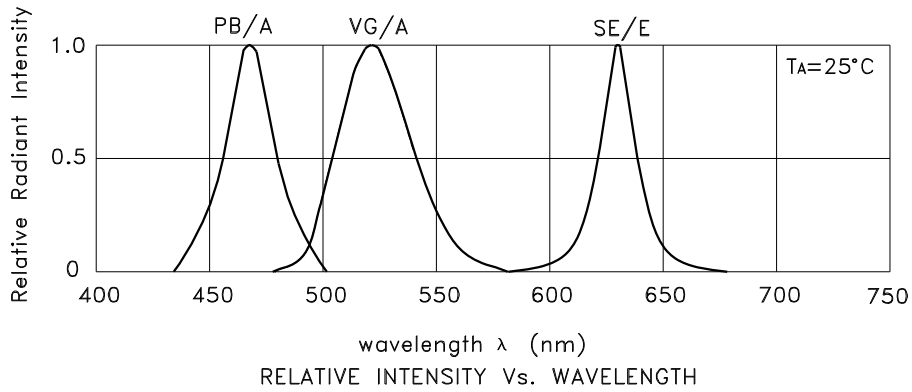
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

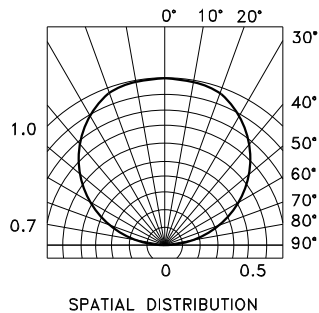
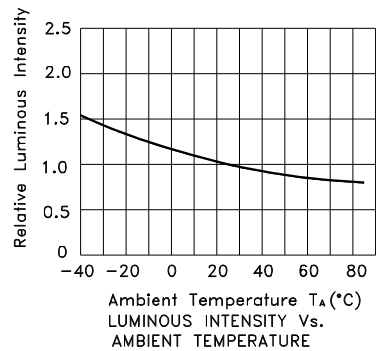
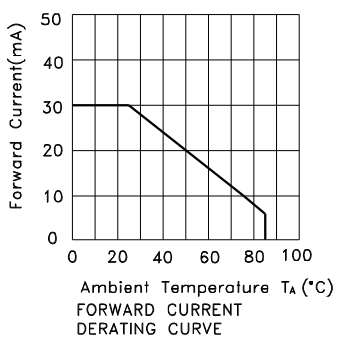
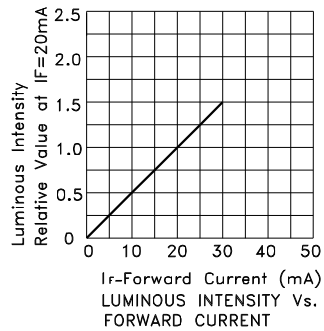
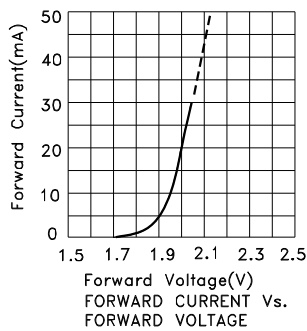
Parameter	Hyper Orange	Green	Blue	Units
Power dissipation	75	120	120	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	195	100	100	mA
Reverse Voltage	5			V
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

Notes:

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

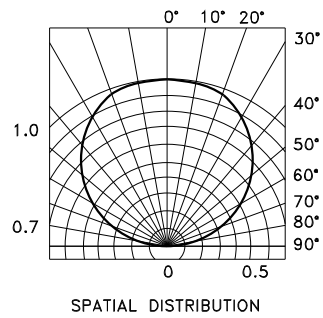
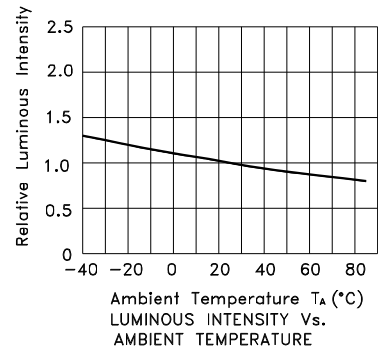
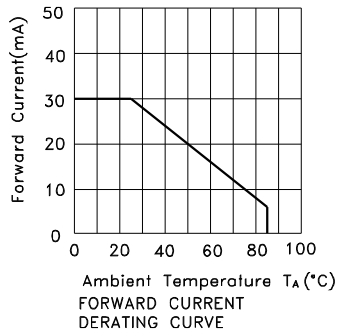
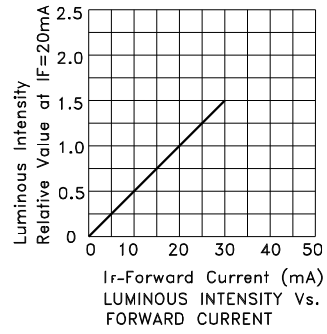
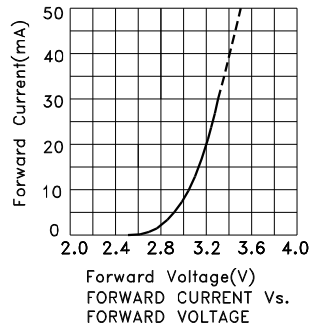


APTF3216SEEVGAPBAC Hyper Orange



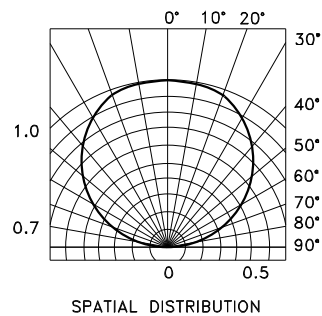
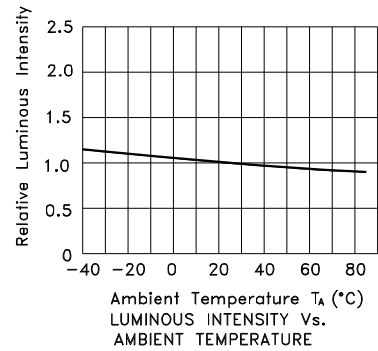
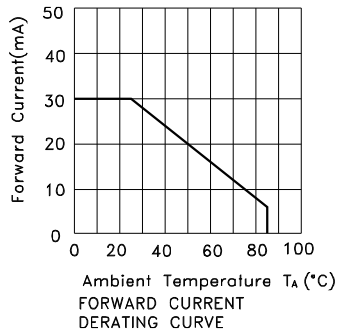
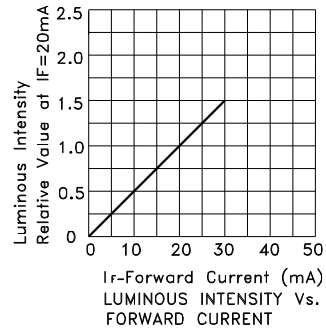
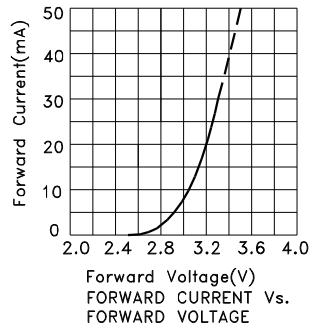
Kingbright

Green



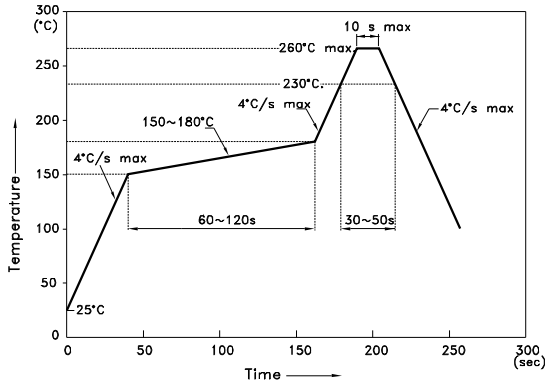
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Blue



APTF3216SEEVGAPBAC

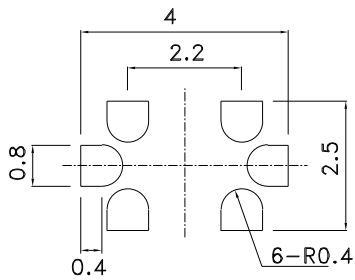
Reflow Soldering Profile For Lead-free SMT Process.



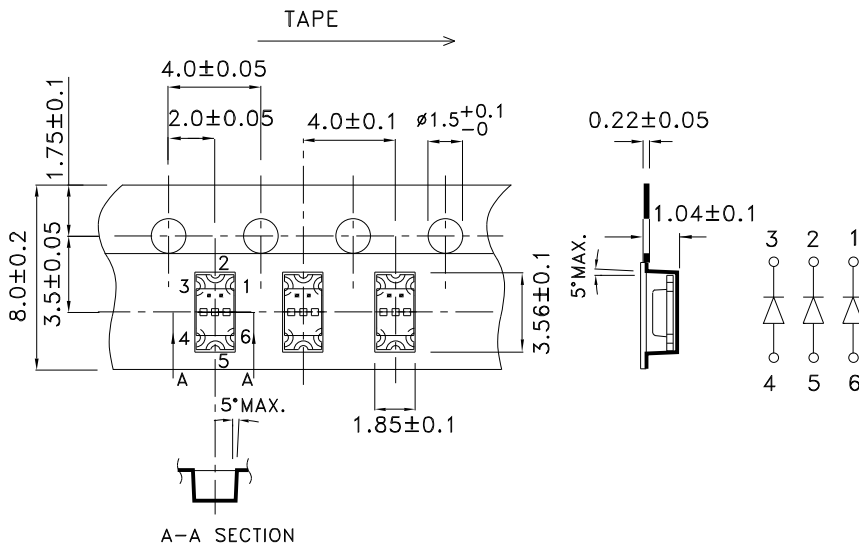
NOTES:

- 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)



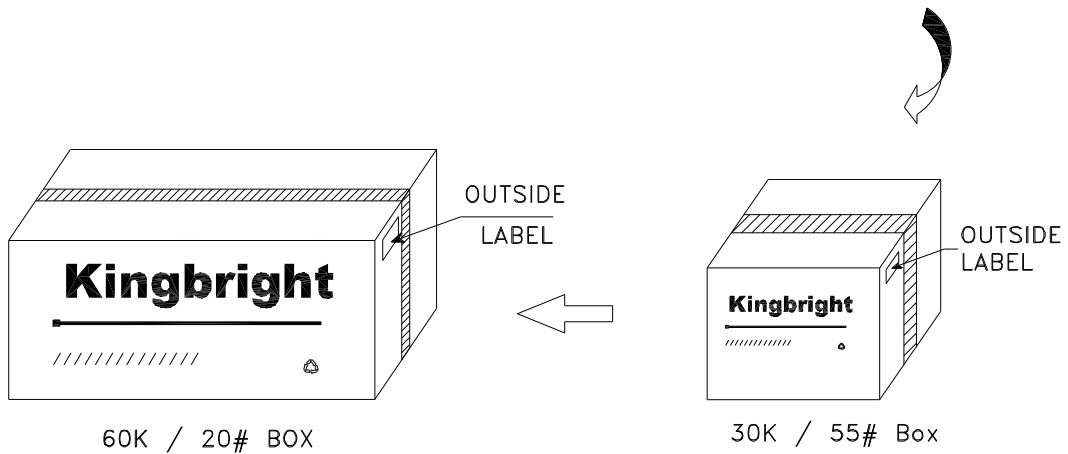
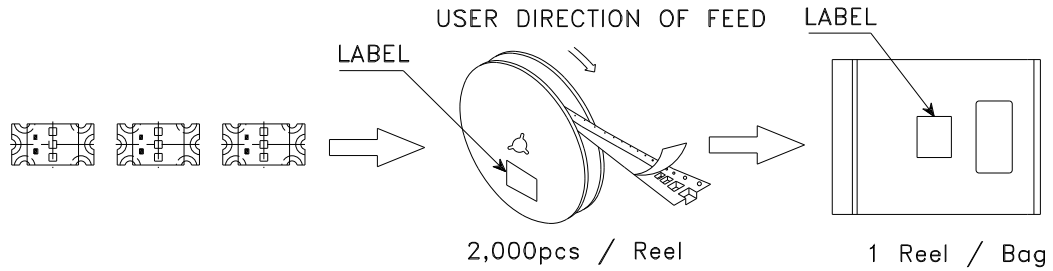
Tape Specifications (Units : mm)




Kingbright

PACKING & LABEL SPECIFICATIONS

APTF3216SEEVGAPBAC



Kingbright	
P/NO: APTF3216xxx	
QTY: 2,000 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small>	
RoHS Compliant	