

PRELIMINARY SPEC

Part Number: APFA3010SURCGKPBAC

HYPER RED / GREEN / BLUE



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

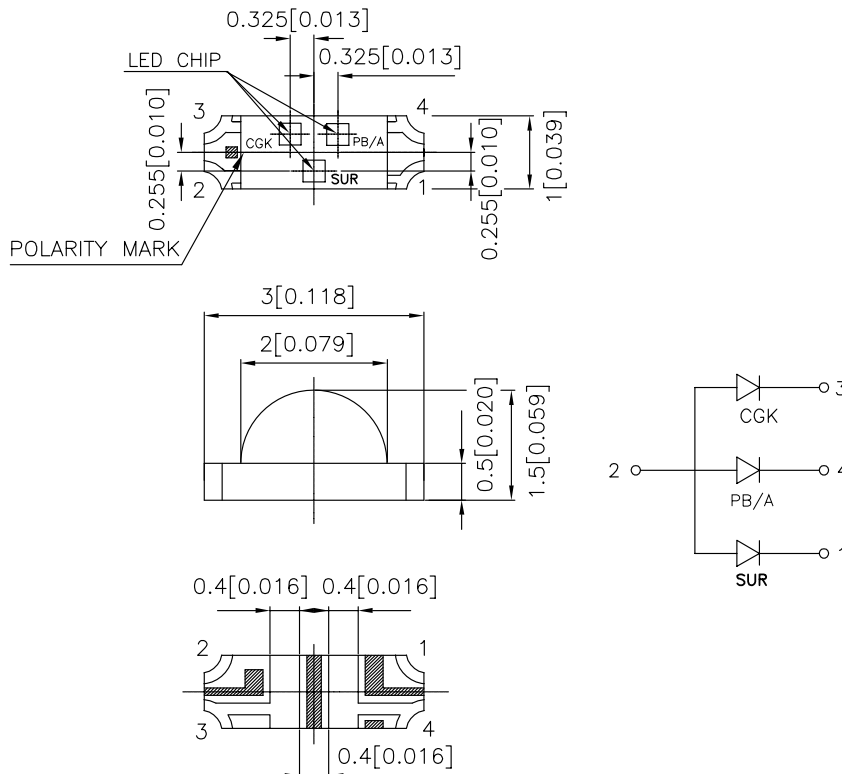
Features

- 3.0mmx1.0mm RIGHT ANGLE SMT LED, 1.5mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.
The Green source color devices are made with InGaAlP on GaAs substrate 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 $\pm 0.2(0.008)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APFA3010SURCGKPBAC	HYPER RED (InGaAlP)	WATER CLEAR	110	250	120°
	GREEN (InGaAlP)		18	50	
	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 Red Green Blue	640 574 468		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Hyper Red Green Blue	628 570 470		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Hyper Red Green Blue	27 20 21		nm	I _F =20mA
C	Capacitance	Hyper Red Green Blue	45 15 100		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red Green Blue	1.9 2.1 3.3	2.5 2.5 3.8	V	I _F =20mA
I _R	Reverse Current	Hyper Red Green Blue		10 10 10	uA	V _R = 5V

Notes:

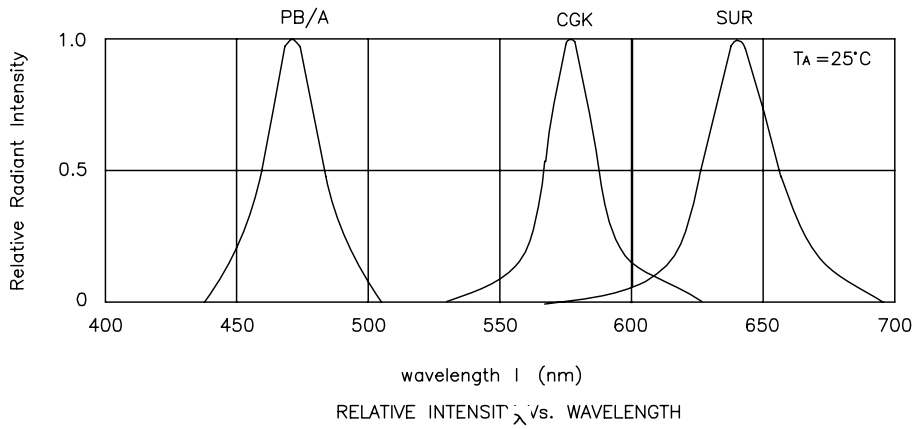
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

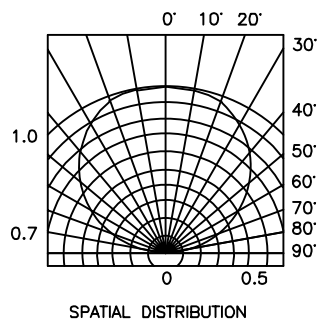
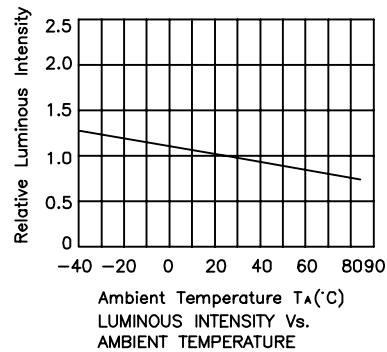
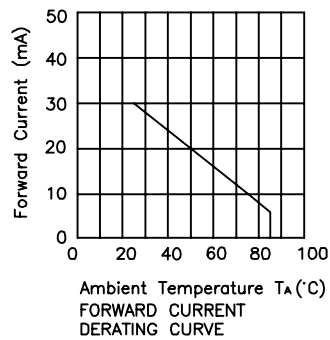
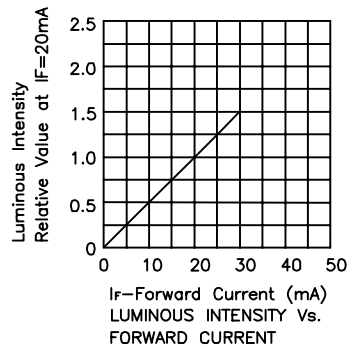
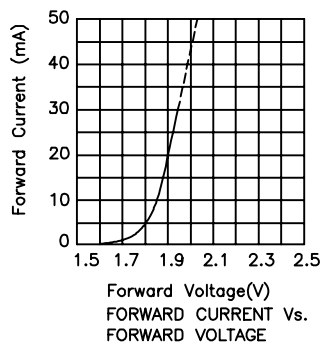
Parameter	Hyper Red	Green	Blue	Units
Power dissipation	75	75	114	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	100	mA
Reverse Voltage	5			V
Operating Temperature	-40°C To +85°C			

Note:

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

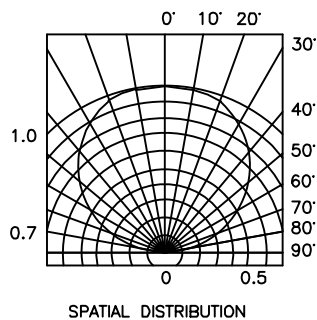
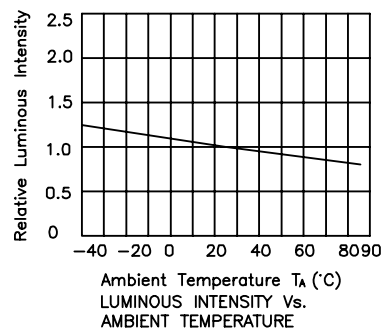
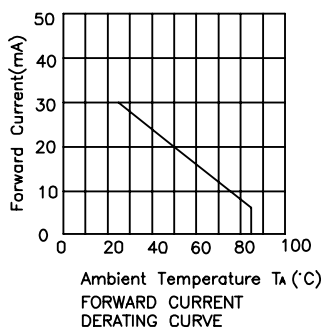
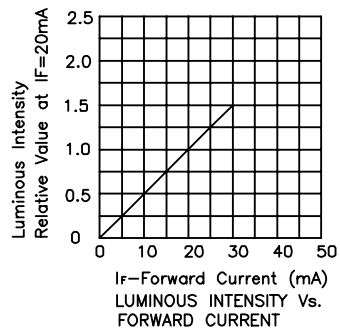
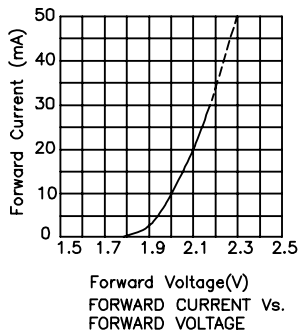


APFA3010SURCGKPBAC Hyper Red

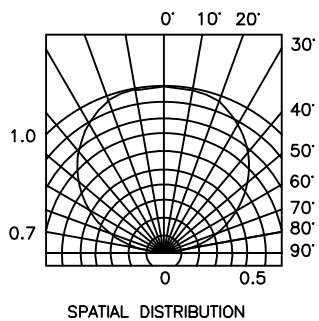
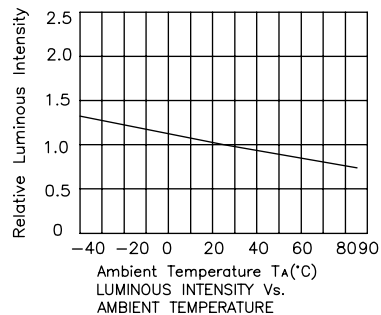
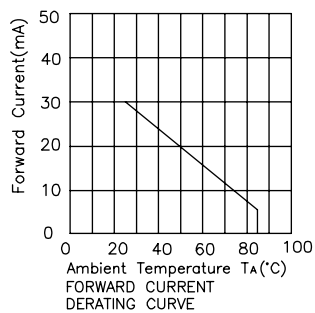
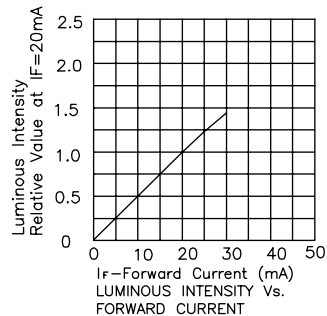
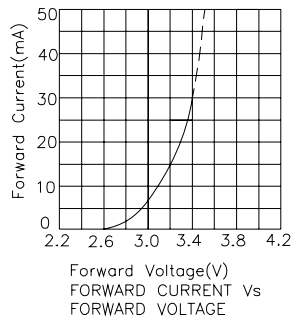


Kingbright

Green

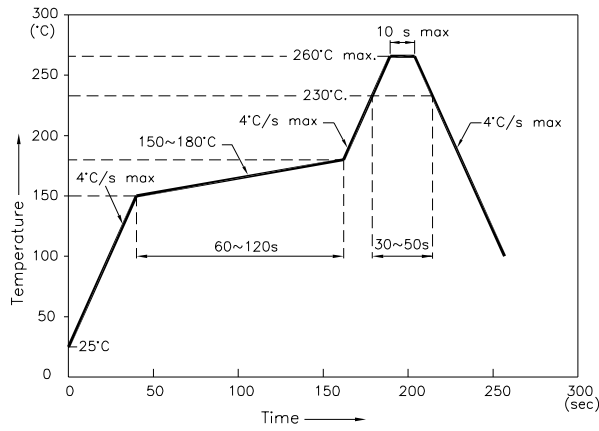


Blue



APFA3010SURCGKPBC

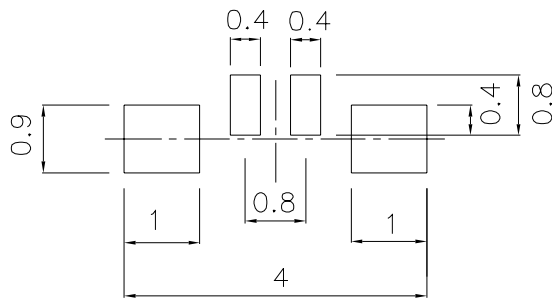
Reflow Soldering Profile For Lead-free SMT Process.



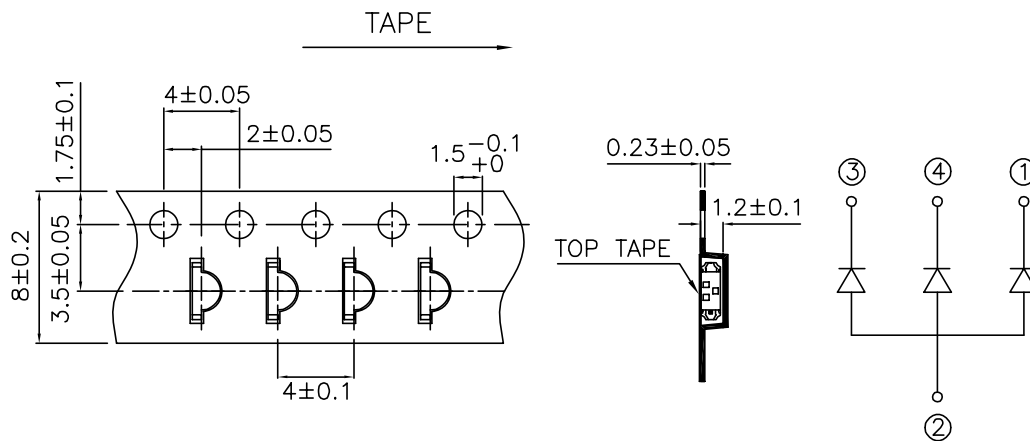
NOTES:

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)

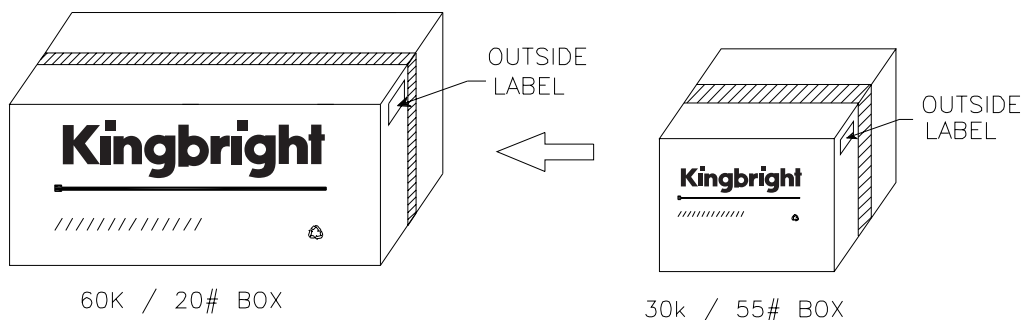
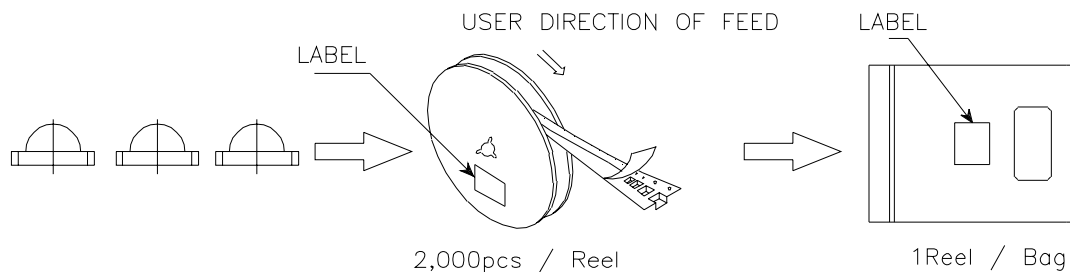



Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

APFA3010SURCGKPBAC



Kingbright	
P/N : APFA3010XXXX	
QTY: 2,000 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
MADE IN CHINA	RoHS Compliant