

PRELIMINARY SPEC

Part Number: APF3236SURKMGKPBA



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

HYPER RED
MEGA GREEN
BLUE

Features

- LOW POWER CONSUMPTION.
- 3.2mmx3.6mm SMT LED, 1.1mm THICKNESS.
- ONE RED, ONE GREEN AND ONE BLUE CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE : 1000PCS / 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 Mega Green source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

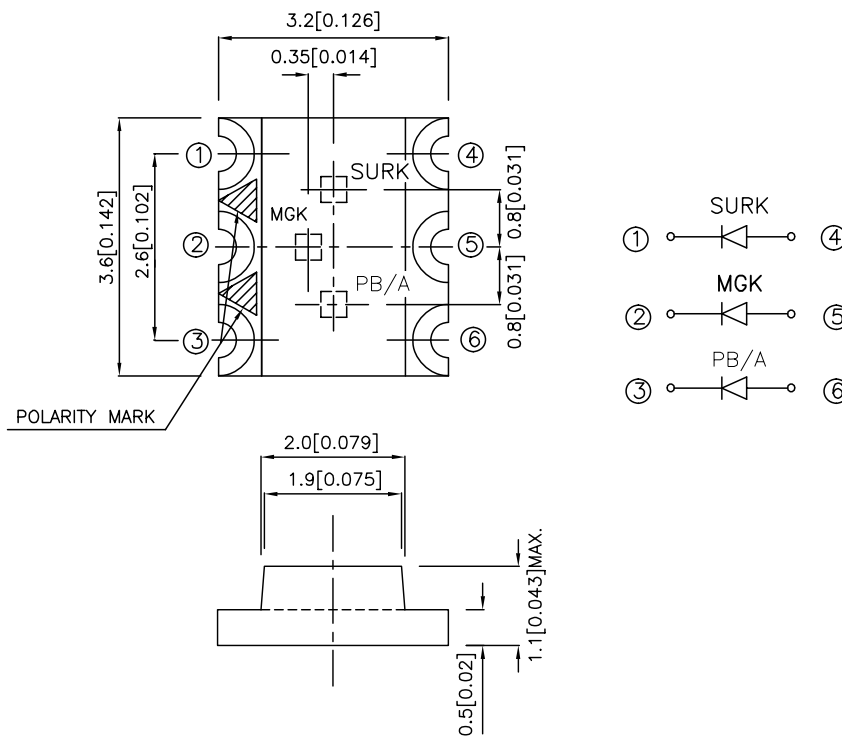
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

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 subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APF3236SURKMGKPBA	HYPER RED (InGaAlP)	WATER CLEAR	70	150	120°
	MEGA GREEN (InGaAlP)		18	60	
	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 Mega Green Blue	650 574 468		nm	IF=20mA
λ_D [1]	Dominant Wavelength	Hyper Red Mega Green Blue	635 570 470		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Red Mega Green Blue	28 20 21		nm	IF=20mA
C	Capacitance	Hyper Red Mega Green Blue	35 15 100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Mega Green Blue	1.95 2.1 3.3	2.5 2.5 3.8	V	IF=20mA
IR	Reverse Current	Hyper Red Mega Green Blue		10 10 10	uA	VR = 5V

Notes:

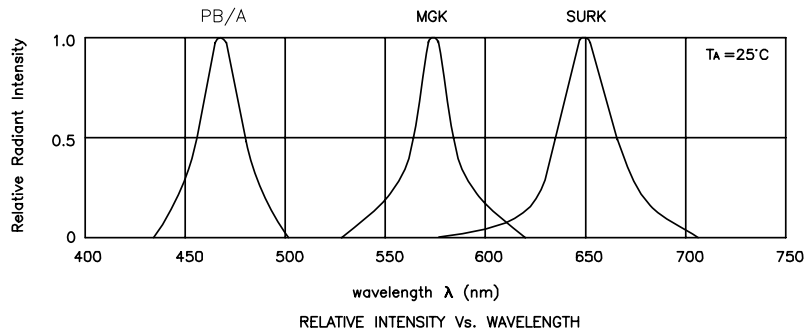
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

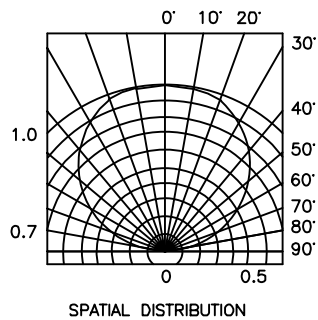
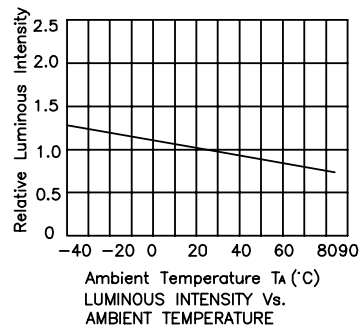
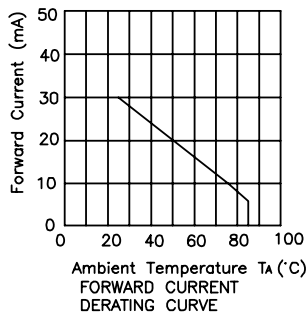
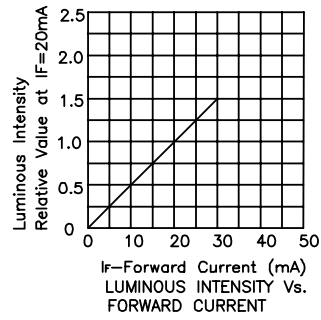
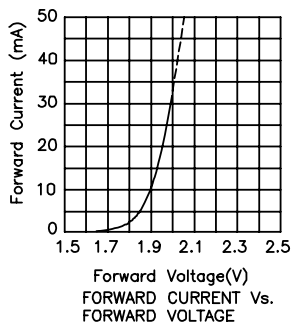
Parameter	Hyper Red	Mega Green	Blue	Units
Power dissipation	75	75	114	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	100	mA
Reverse Voltage	5			V
Operating/Storage Temperature	-40°C To +85°C			

Note:

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

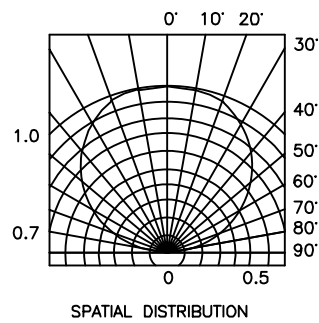
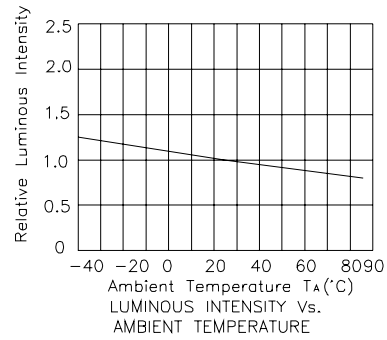
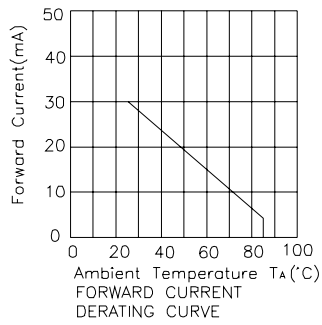
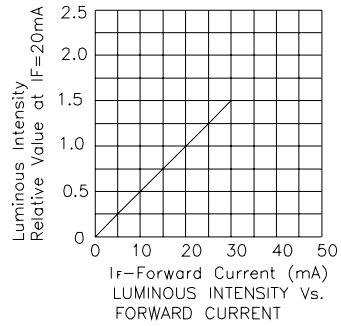
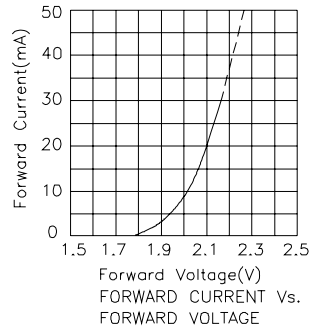


APF3236SURKMGKPBA Hyper Red



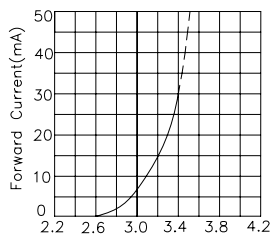
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Mega Green

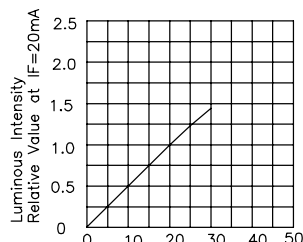


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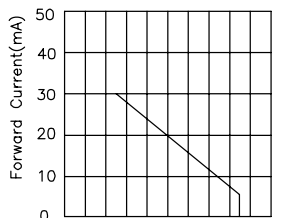
Blue



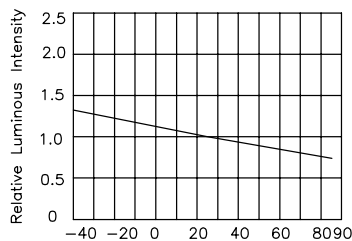
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



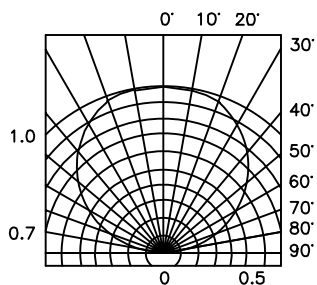
I_f -Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE



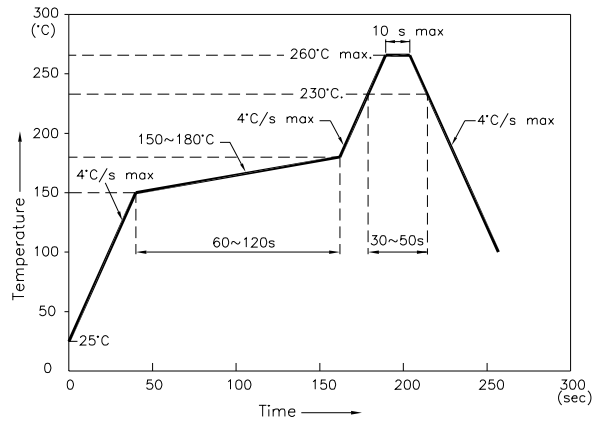
Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

APF3236SURKMGKPB

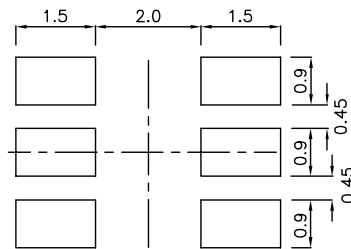
Reflow Soldering Profile For Lead-free SMT Process.



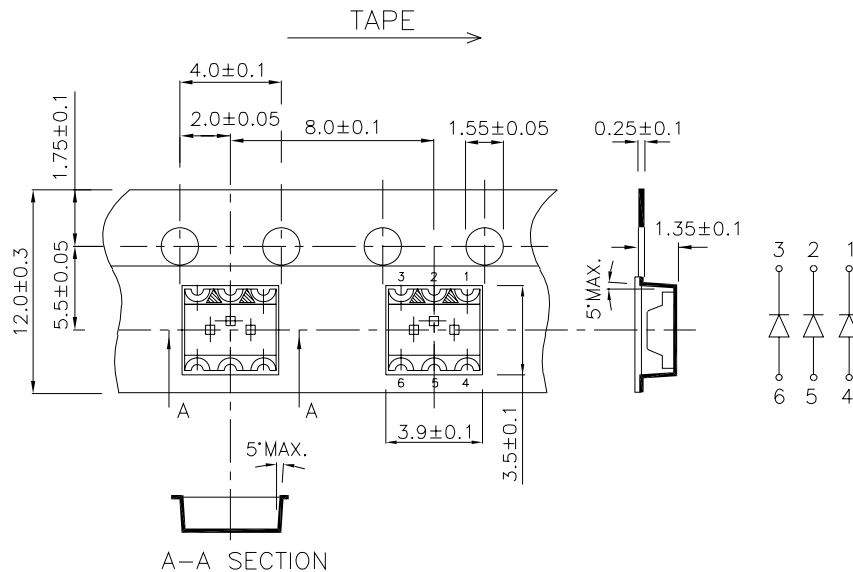
NOTES:

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)



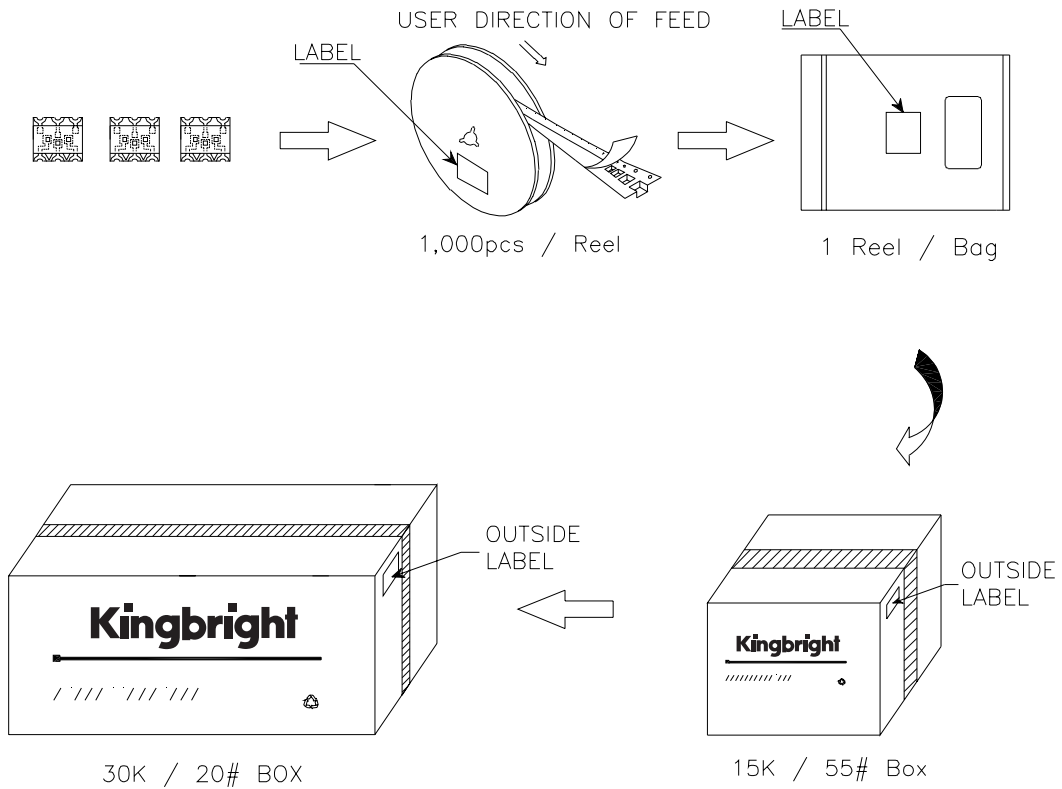
Tape Specifications (Units : mm)

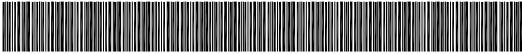


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PACKING & LABEL SPECIFICATIONS

APF3236SURKMGKPBA



Kingbright	
P/NO: APF3236XXX	
QTY: 1,000 pcs	Q.C. Q C xx xx. xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	