

Blue
Hyper Red
Green

- 1.6mmX1.6mm SMT LED, 0.7mm thickness.
- Low power consumption.
- One blue, one red and one green chips in one package.
- Can produce any color in visible spectrum, including white light.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

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

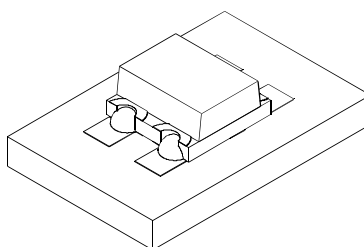
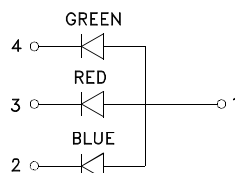
The Hyper Red source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

The Green source color devices are made with AlGaInP on GaAs substrate 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.



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.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APTF1616QBDSURKCGKC	Blue (InGaN)	WATER CLEAR	36	100	120°
	Hyper Red (AlGaInP)		110	230	
	Green (AlGaInP)		18	50	

Notes:

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

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue Hyper Red Green	468 650 574		nm	IF=20mA
λD [1]	Dominant Wavelength	Blue Hyper Red Green	470 630 570		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue Hyper Red Green	25 28 20		nm	IF=20mA
C	Capacitance	Blue Hyper Red Green	100 35 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue Hyper Red Green	3.3 1.95 2.1	4 2.5 2.5	V	IF=20mA
IR	Reverse Current	Blue Hyper Red Green		10 10 10	uA	VR=5V

Notes:

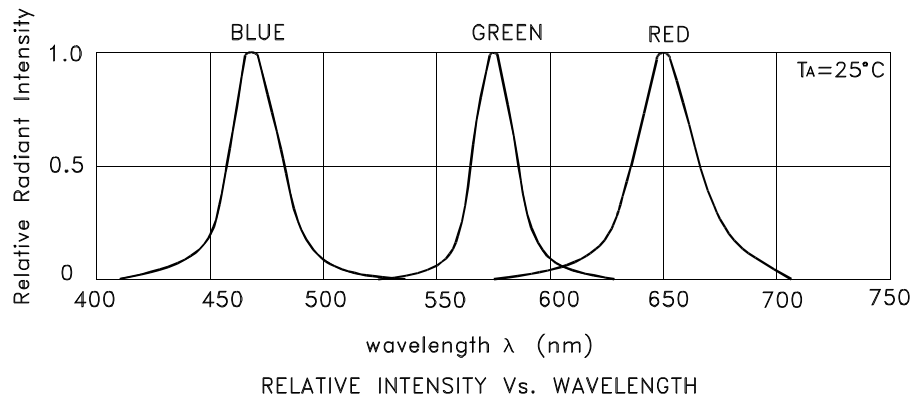
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

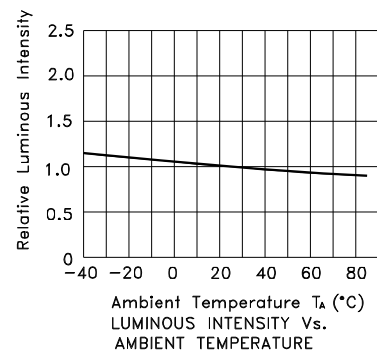
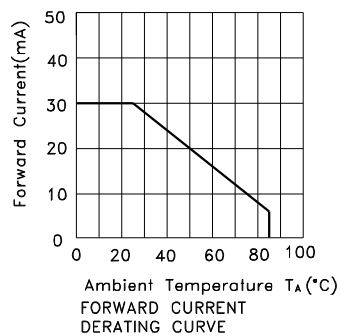
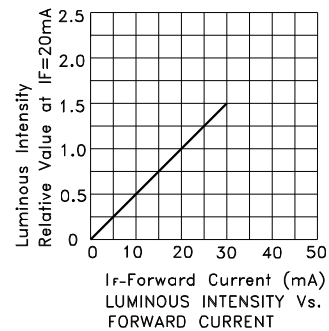
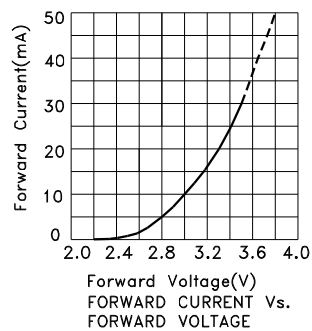
Parameter	Blue	Hyper Red	Green	Units
Power dissipation	120	75	75	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	150	185	150	mA
Reverse Voltage	5			V
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

Notes:

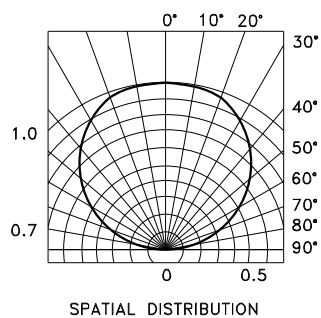
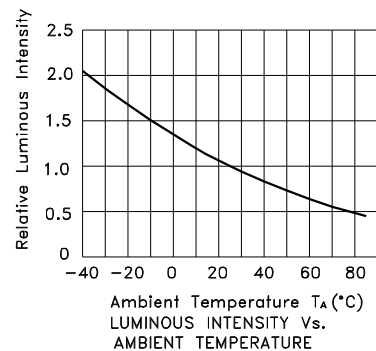
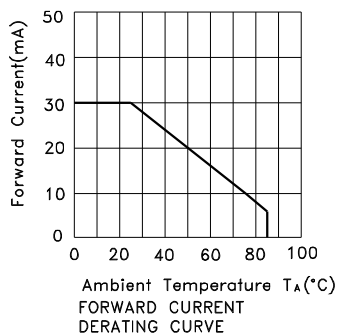
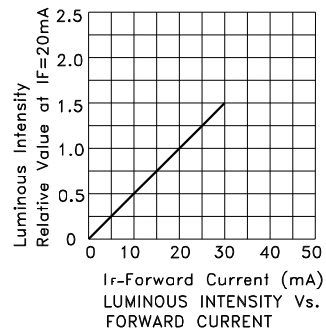
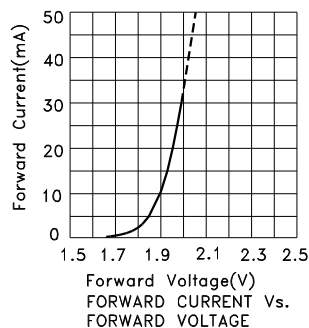
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



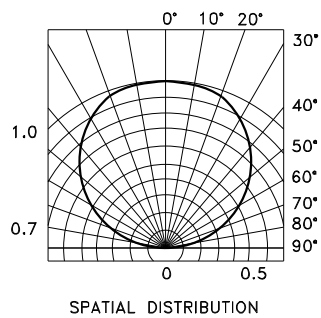
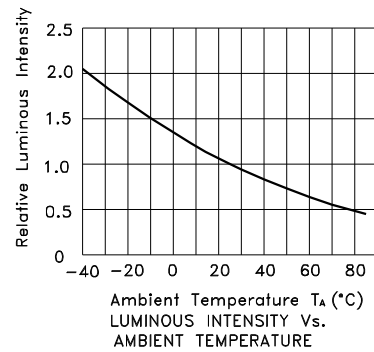
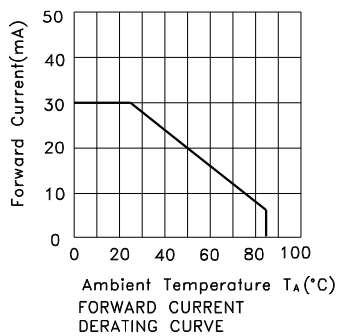
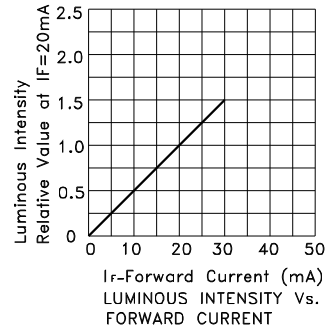
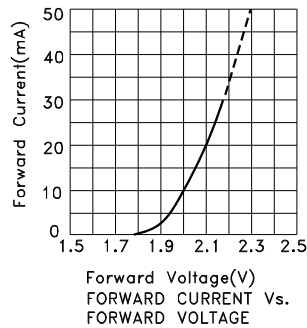
APTF1616QBDSURKCGKC Blue

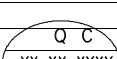
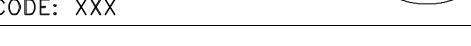


Hyper Red



Green



<h1>Kingbright</h1>	
P/N: APTF1616xxx	
QTY: 2,000 pcs	Q.C.
S/N: XXXX	
CODE: XXX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	