



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: APHBM2012LQBDSURKC

Blue
Hyper Red

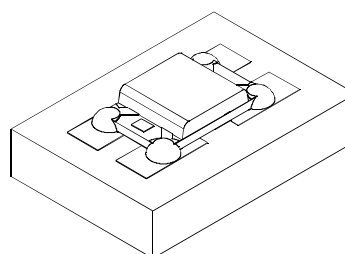
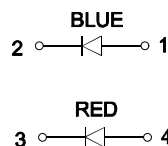
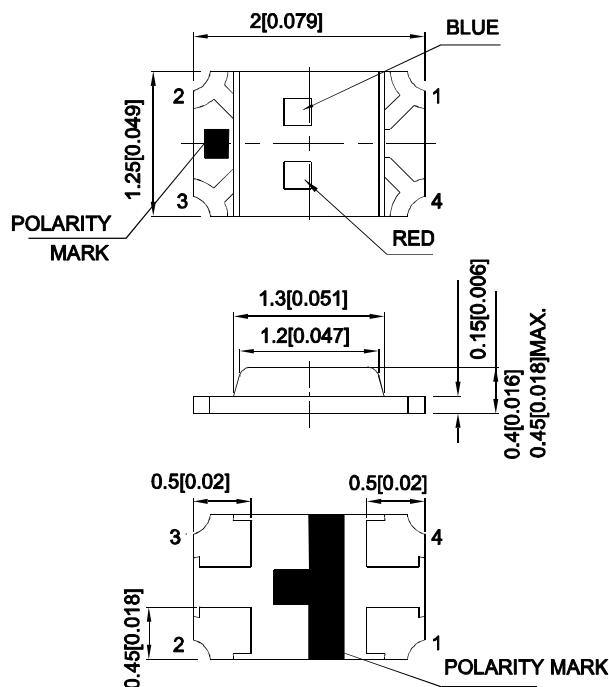
Features

- 2.0mmx1.25mm SMD LED, 0.45mm max. thickness.
- Bi-color, low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

Descriptions

- The Blue source color devices are made with InGaN Light Emitting Diode.
- The Hyper Red source color devices are made with Al GaInP on GaAs substrate Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1 (0.004") 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.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 2mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APHBM2012LQBDSURKC	Blue (InGaN)	Water Clear	6	12	120°
			6*	12*	
	Hyper Red (AlGaInP)		10	20	
			2*	10*	

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%.

* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Min.	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue Hyper Red		460 645		nm	IF=2mA
λD [1]	Dominant Wavelength	Blue Hyper Red		465 630		nm	IF=2mA
Δλ1/2	Spectral Line Half-width	Blue Hyper Red		25 28		nm	IF=2mA
C	Capacitance	Blue Hyper Red		100 35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue Hyper Red	2.2 1.5	2.65 1.75	3 2.1	V	IF=2mA
IR	Reverse Current	Blue Hyper Red			50 10	uA	VR = 5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

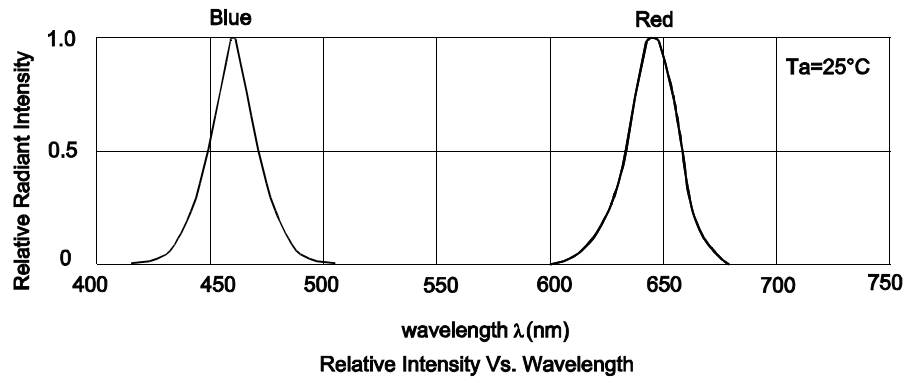
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

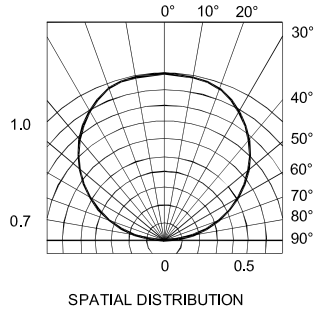
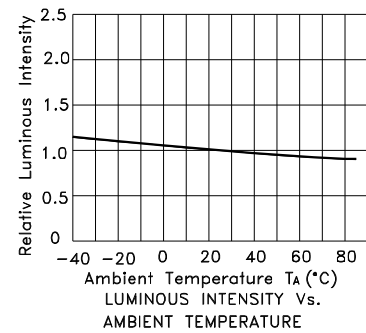
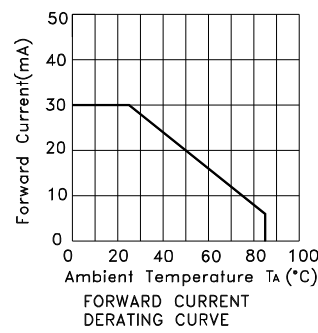
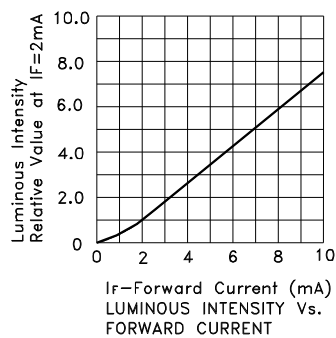
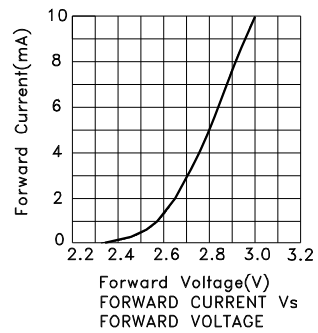
Parameter	Blue	Hyper Red	Units
Power dissipation	90	63	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	150	185	mA
Electrostatic Discharge Threshold (HBM)	250	3000	V
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

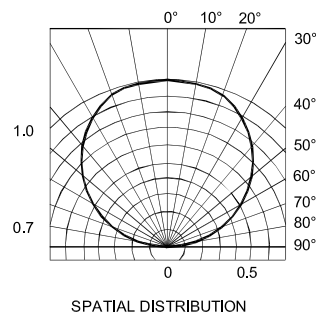
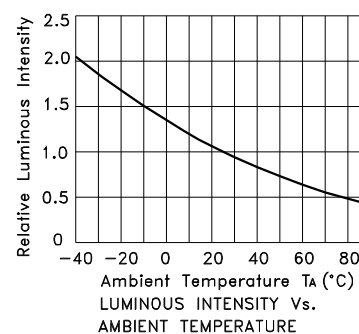
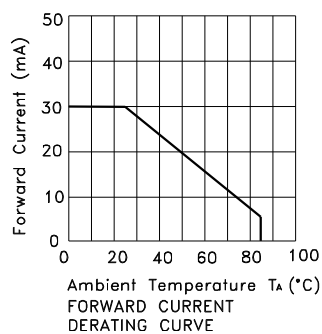
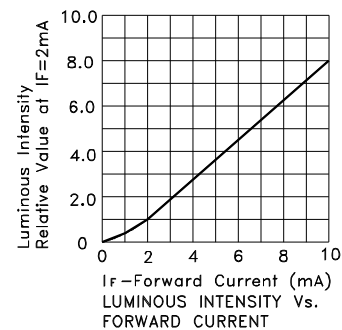
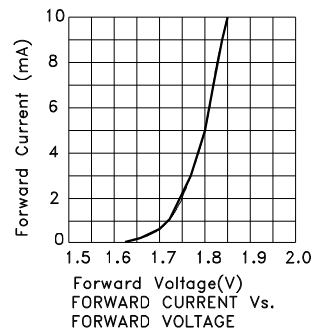
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APHBM2012LQBDSURKC
Blue

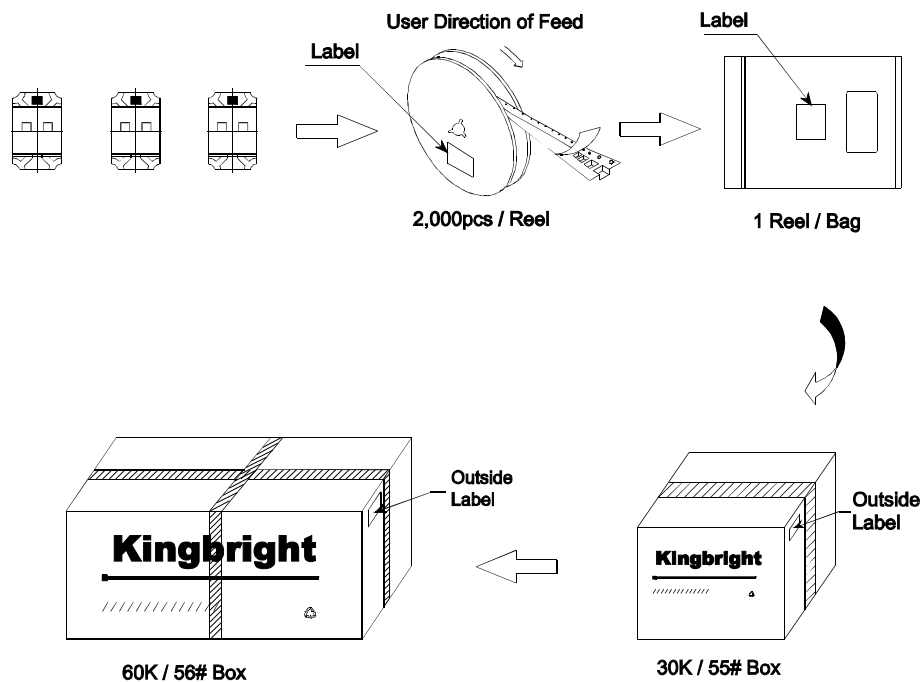


Hyper Red



PACKING & LABEL SPECIFICATIONS

APHBM2012LQBDSURKC



Kingbright		
P/NO: APHBM2012xxx		
QTY: 2,000 pcs	Q.C.	Q.C. xxxxxxx PASSED
S/N: XXXX		
CODE: XXX		
LOT NO:		
		
RoHS Compliant		

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