



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: APHB1608LQBDCGKC

Blue
Green

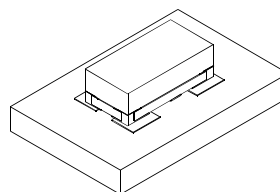
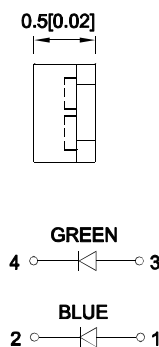
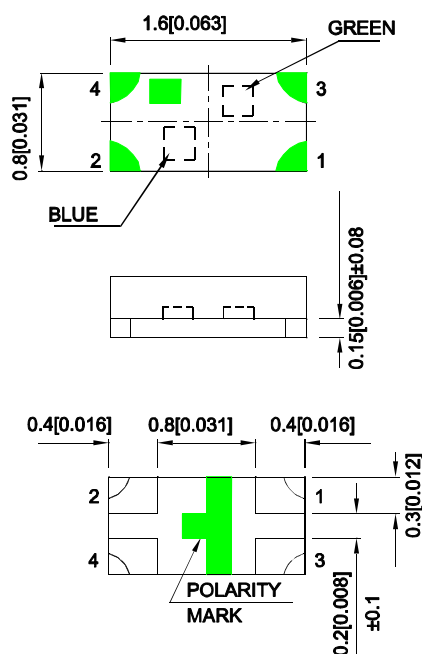
Features

- 1.6mmX0.8mm SMD LED, 0.5mm thickness.
- Compatible with reflow soldering.
- Available in various color combination.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- Low current IF=2mA operating.
- RoHS compliant.

Descriptions

- The Blue source color devices are made with InGaN Light Emitting Diode.
- The Green source color devices are made with AlGaInP 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 $\pm 0.15(0.006)$ 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
APHB1608LQBDCGKC	Blue (InGaN)	Water Clear	6	12	130°
	Green (AlGaInP)		1.2	3	

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%.
3. 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 Green		460 574		nm	If=2mA
λD [1]	Dominant Wavelength	Blue Green		465 570		nm	If=2mA
Δλ1/2	Spectral Line Half-width	Blue Green		25 20		nm	If=2mA
C	Capacitance	Blue Green		100 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue Green	2.2 1.5	2.65 1.9	3 2.1	V	If=2mA
IR	Reverse Current	Blue Green			50 10	uA	VR = 5V

Notes:

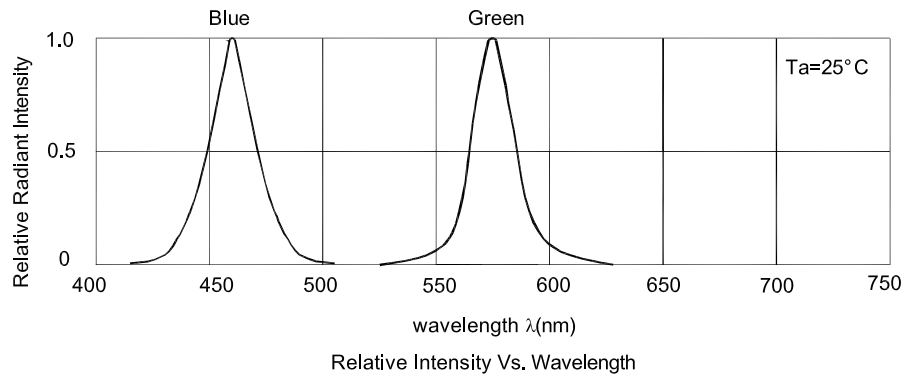
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

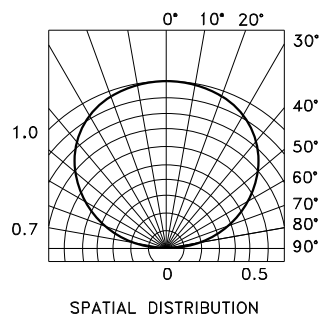
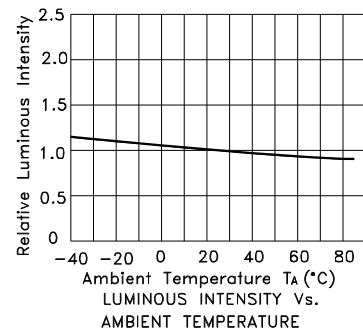
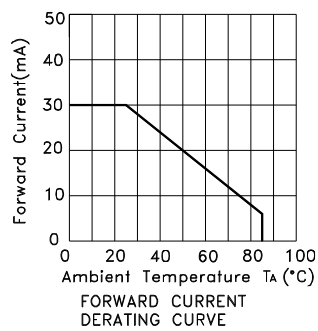
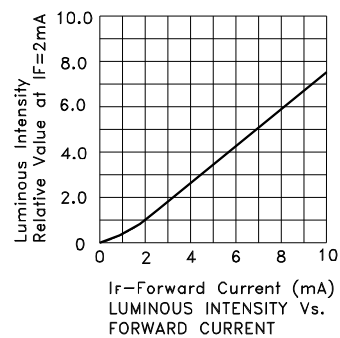
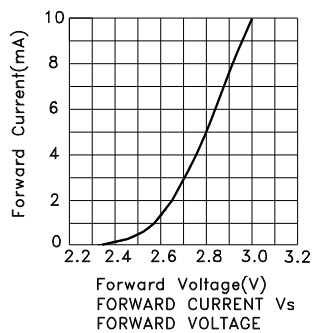
Parameter	Blue	Green	Units
Power dissipation	90	63	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	150	150	mA
Electrostatic Discharge Threshold (HBM)	250	-	V
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

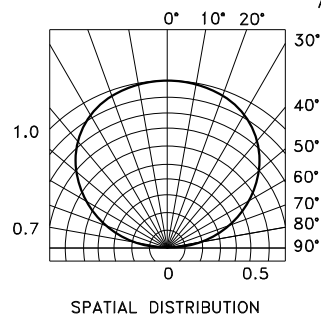
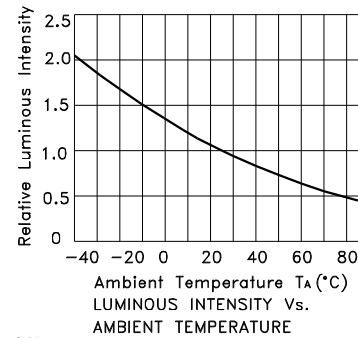
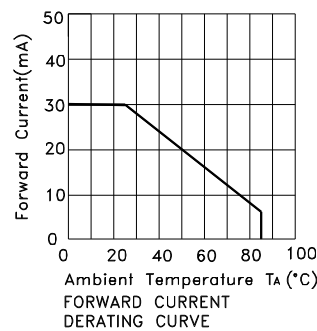
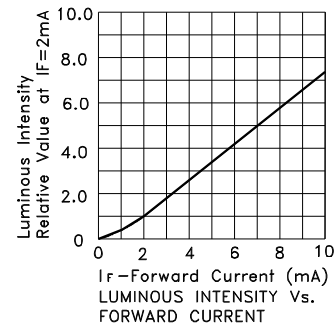
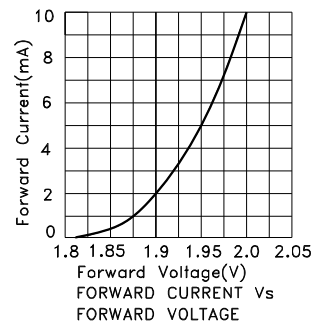
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APHB1608LQBDCGKC Blue



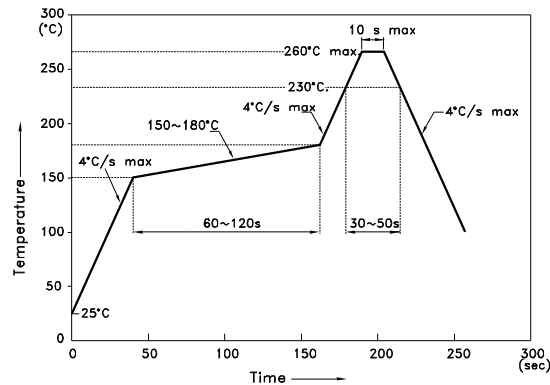
Green



APHB1608LQBDCGKC

**Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.**

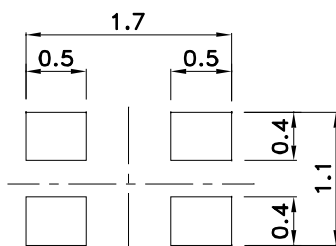
Reflow Soldering Profile For Lead-free SMT Process.



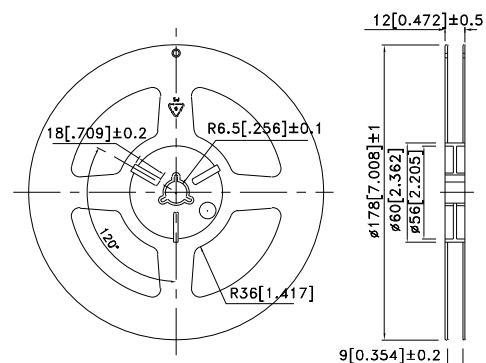
NOTES:

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.

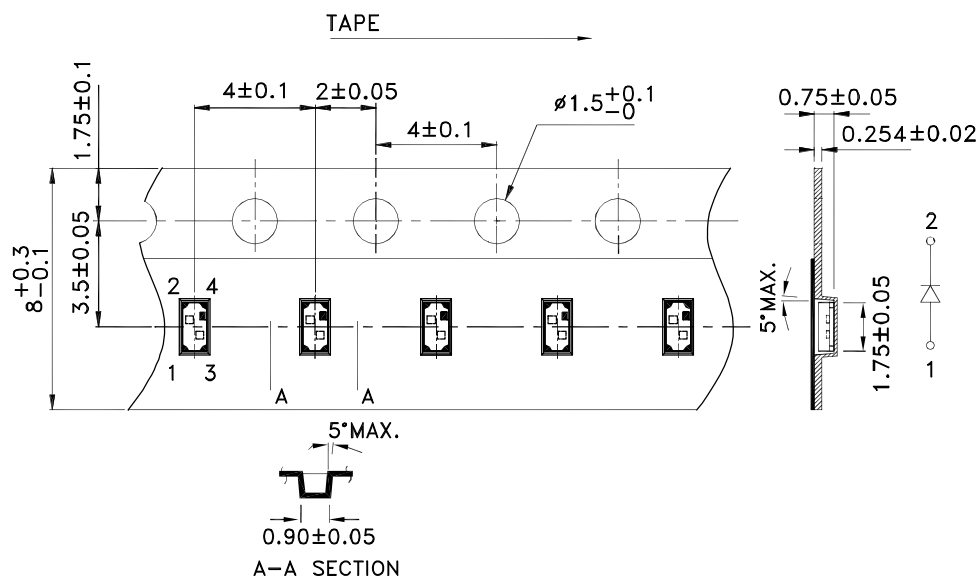
Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



Reel Dimension

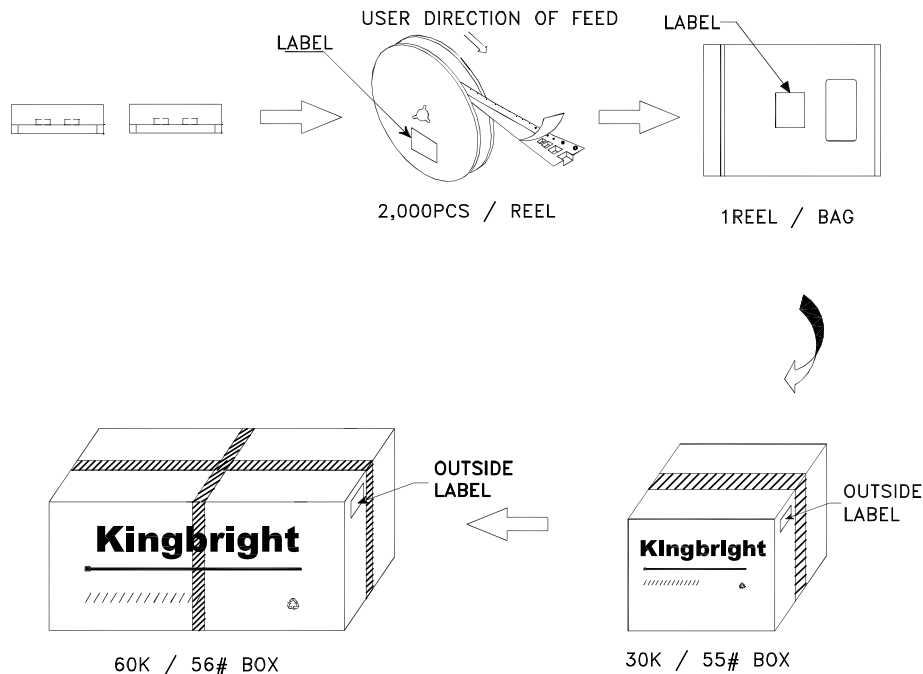


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APHB1608LQBDCGKC



Kingbright	
P/NO: APHB1608xxx	
QTY: 2,000 pcs	Q.C.
S/N: XXXX	Q C XX-XX-XXXX PASSED
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	

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Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331