

PRELIMINARY SPEC

Part Number: AAAF5060QBDZGSEEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

BLUE
GREEN
HYPER ORANGE

Features

- CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

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

The Green source color devices are made with AlInGaN on Sapphire Light Emitting Diode.

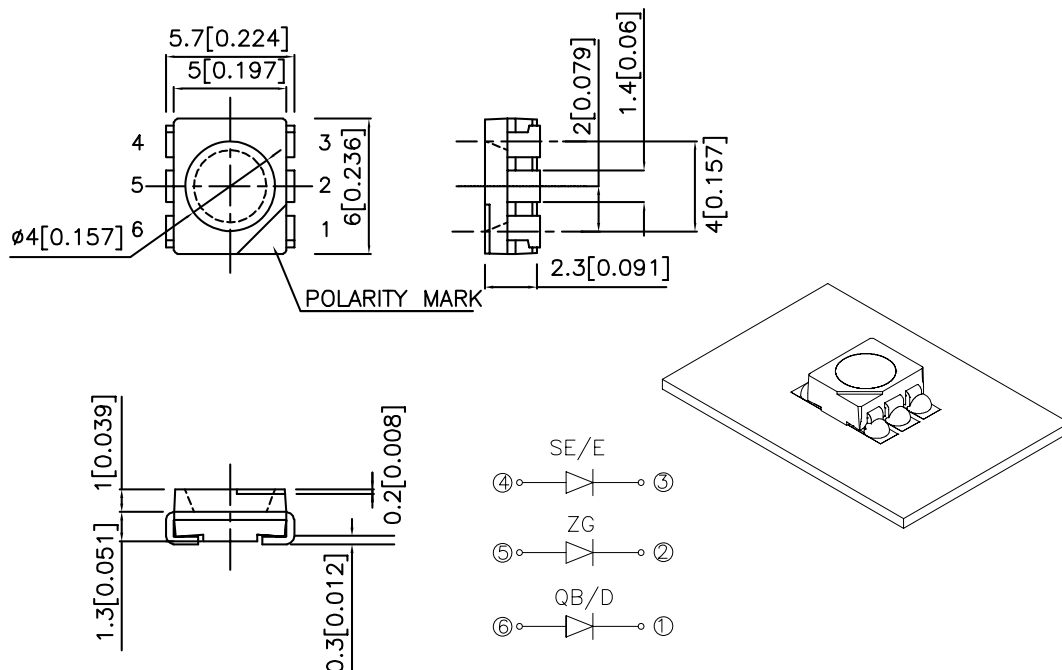
The Hyper Orange source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

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.

Package Dimensions



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @30mA *50mA		Viewing Angle [2]
			Min.	Typ.	2θ1/2
AAAF5060QBDZGSEEC	BLUE (AlInGaN)	WATER CLEAR	110	250	100°
	GREEN (AlInGaN)		280	650	
	HYPER ORANGE (InGaAlP)		*650	*1000	

Notes:

- 01/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- *Luminous intensity with asterisk is measured at 50mA; Luminous Intensity / Luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Blue Green Hyper Orange	468 515 630		nm	IF=20mA
λ_D [1]	Dominant Wavelength	Blue Green Hyper Orange	470 525 621		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue Green Hyper Orange	25 30 20		nm	IF=20mA
C	Capacitance	Blue Green Hyper Orange	100 45 25		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue Green Hyper Orange	3.5 3.3 2.0	4.0 4.1 2.5	V	IF=20mA
IR	Reverse Current	Blue Green Hyper Orange		10 10 10	uA	VR= 5V

Notes:

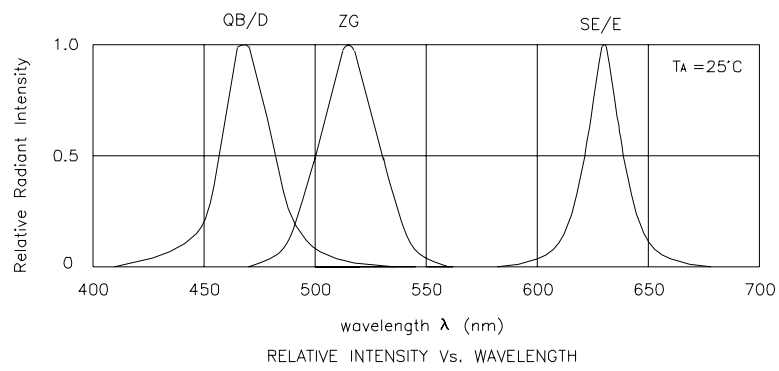
- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

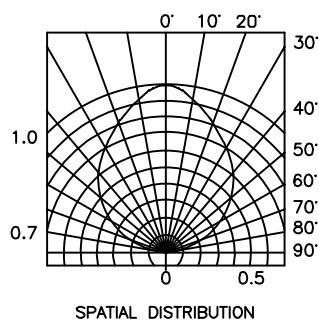
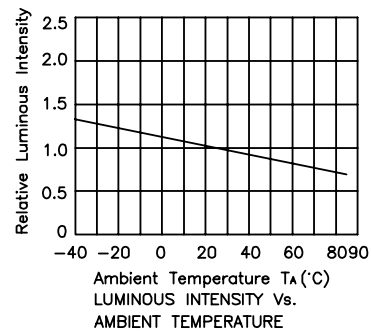
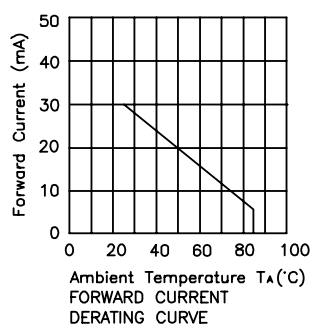
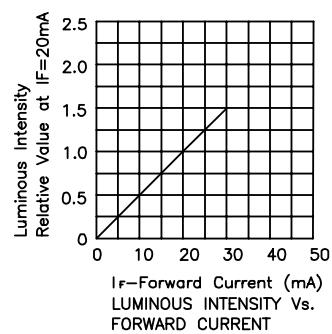
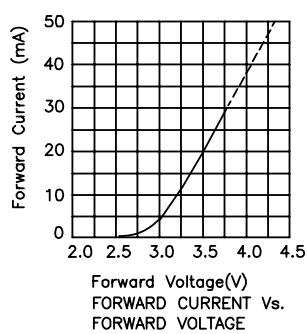
Parameter	Blue	Green	Hyper Orange	Units
Power dissipation [2]	350			mW
DC Forward Current	30	30	50	mA
Peak Forward Current [1]	180	150	195	mA
Reverse Voltage	5			V
Operating / Storage Temperature	-40°C TO +85°C			

Notes:

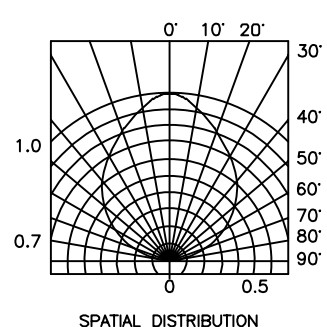
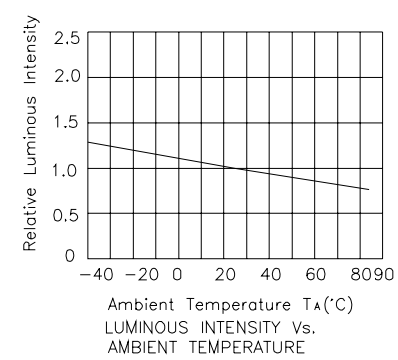
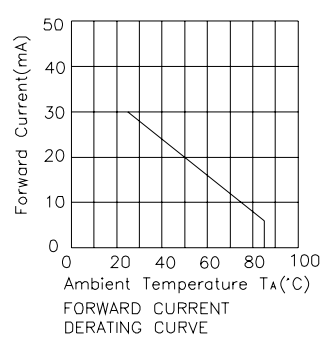
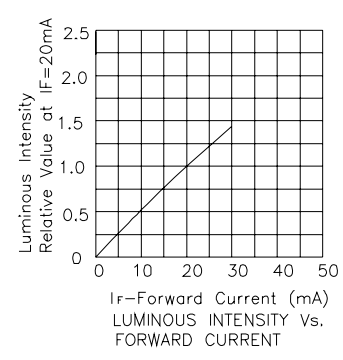
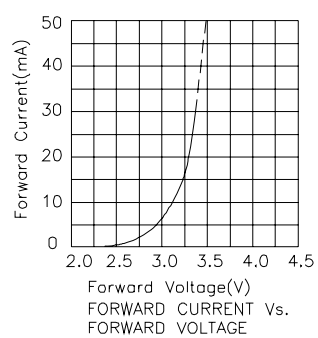
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- Within 350mW at all chips are lightened.



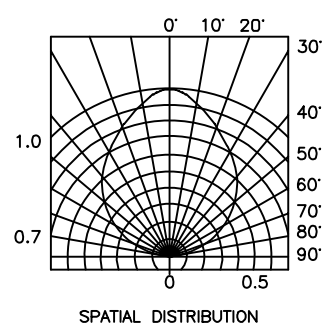
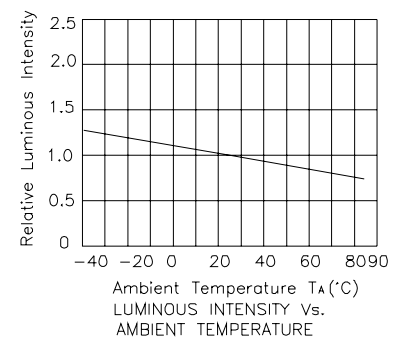
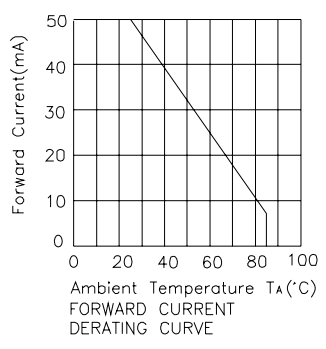
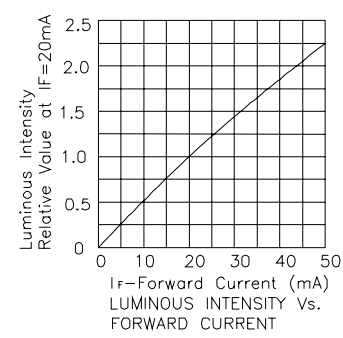
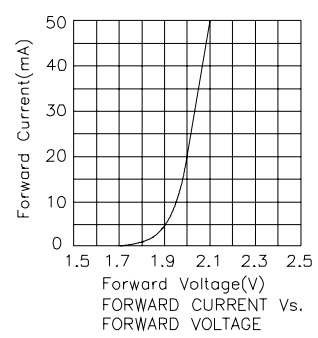
AAAF5060QBDZGSEEC
Blue



Green

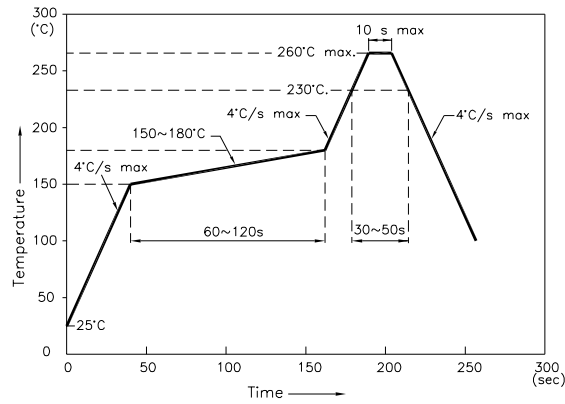


Hyper Orange



AAAF5060QBDZGSEEC

Reflow Soldering Profile For Lead-free SMT Process.

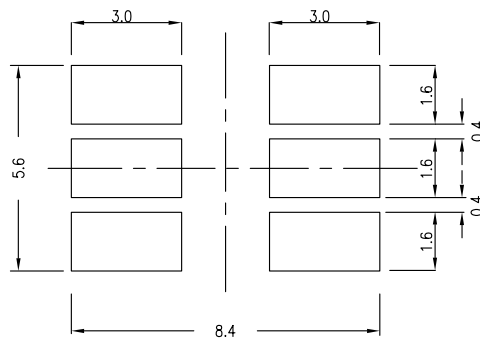


NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$. 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.

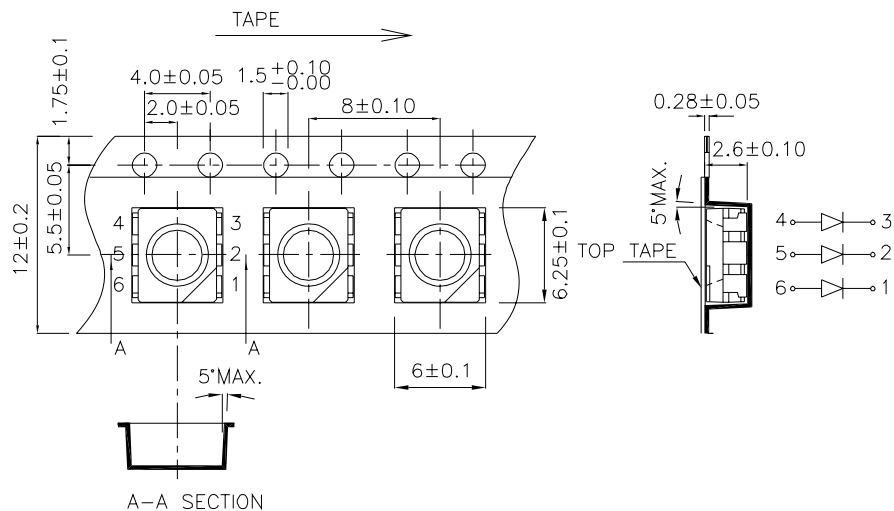
Recommended Soldering Pattern

(Units : mm; Tolerance: ± 0.1)



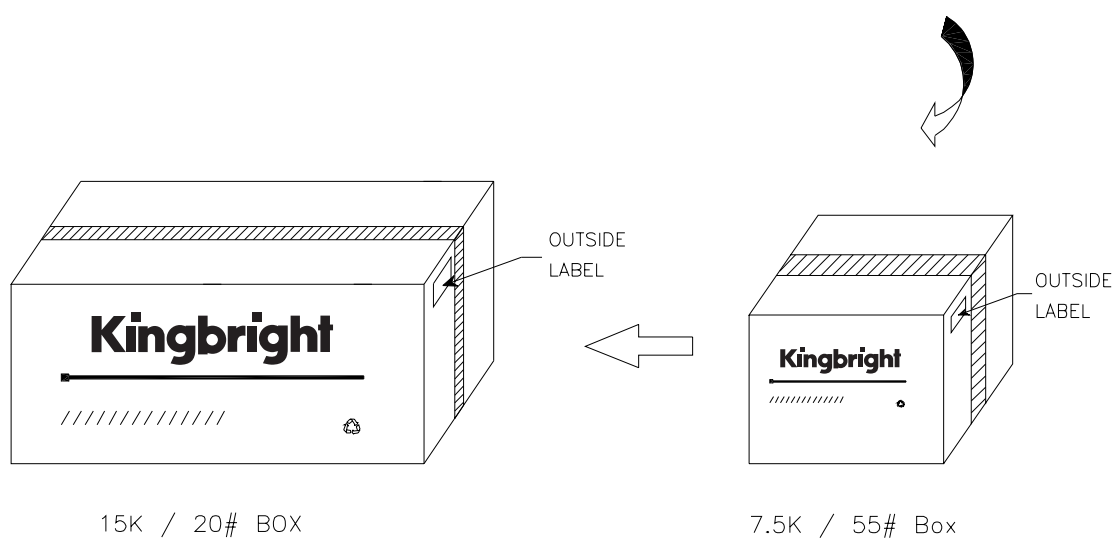
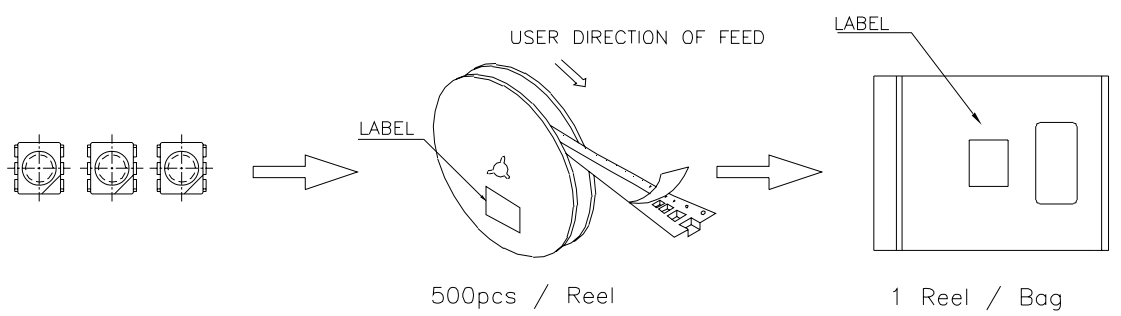
Tape Specifications

(Units : mm)



PACKING & LABEL SPECIFICATIONS

AAAF5060QBDZGSEEC



Kingbright	
P/NO: AAAF5060xxx	
QTY: 500 pcs	Q.C. Q C xx xx. xxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
MADE IN CHINA	RoHS Compliant