



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : Q110Y4-BH

3.0*1.0mm 110 SMD LEDs

Features :

- Compatible with automatic placement equipment
- Compatible with reflow solder process

Applications :

- Indicators
- Automotive : backlighting in dashboard and switch
- Backlight for LCD

Dice material	Emitted color	Lens Color
AlGaInP/GaAs	Yellow	Water transparent

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Spectral half bandwidth	IF=5mA	$\Delta \lambda$		17		nm
Dominant wavelength	IF=5mA	λD	586		592	nm
Forward voltage	IF=5mA	VF	1.8		2.4	V
Luminous intensity	IF=5mA	Iv	70	150		mcd
Viewing angle at 50% Iv	IF=5mA	$2\theta 1/2$		120		Deg
Reverse current	VR=5V	IR			10	μA

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Power dissipation	Pd	72	mW
Forward current	IF	20	mA
Reverse voltage	VR	5	V
Operating temperature range	Top	-40 ~+80	°C
Storage temperature range	Tstg	-40 ~+100	°C
Peak pulsing current (1/8 duty f=1kHz)	I _{fp}	100	mA

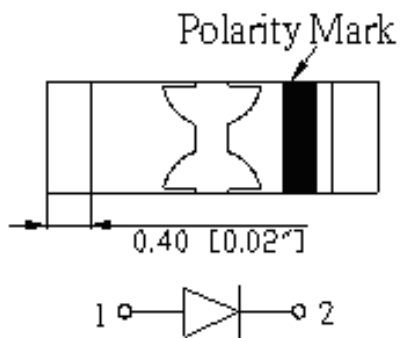
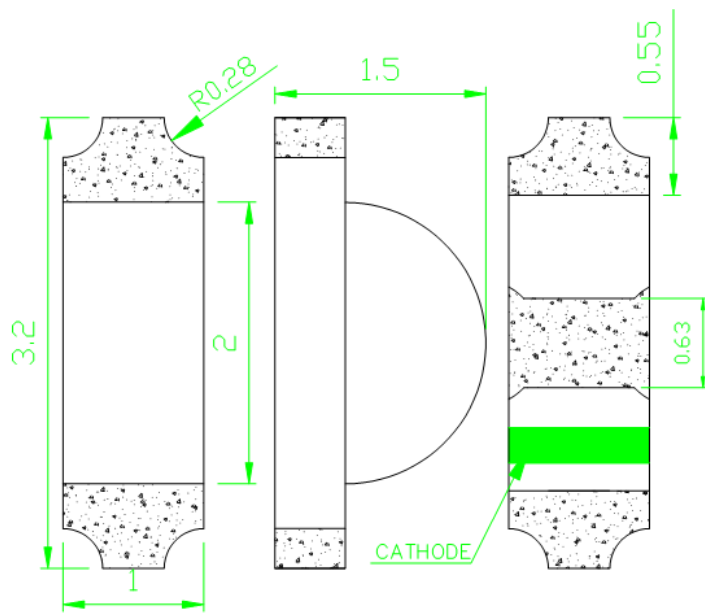
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PACKAGING DIMENSIONS

RECOMMEND PAD LAYOUT



NOTES:

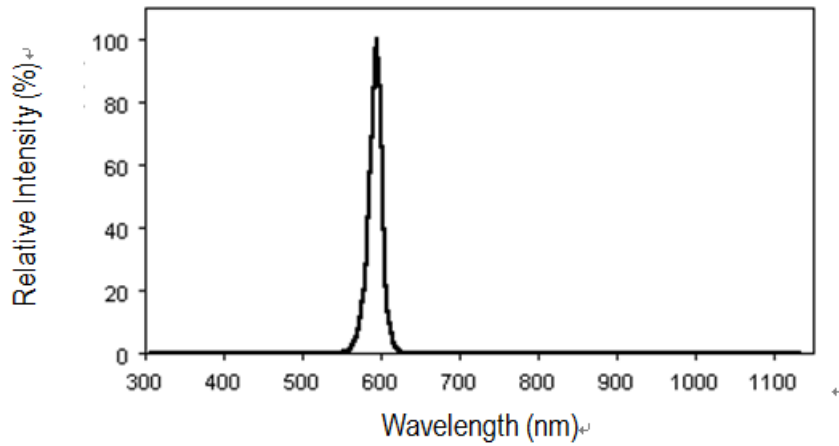
1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.15\text{mm}$ (0.004inch) unless otherwise noted.
- 3 Package:3000pcs/reel..(包装每卷 3000PCS)



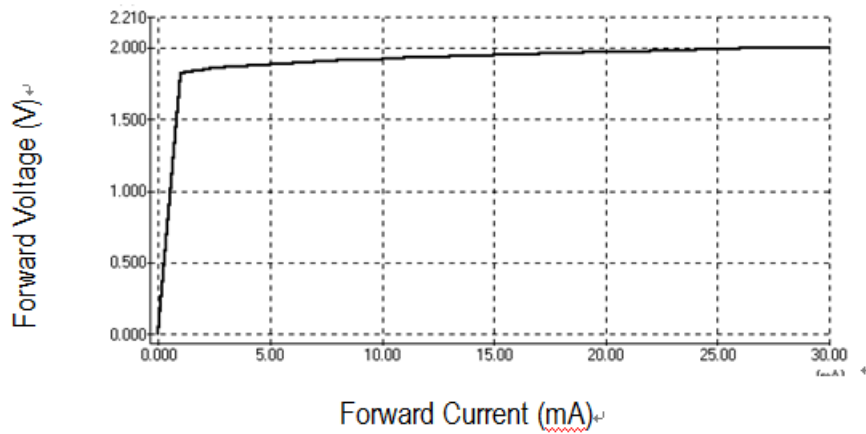
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Typical Electro-Optical Characteristics Curve:

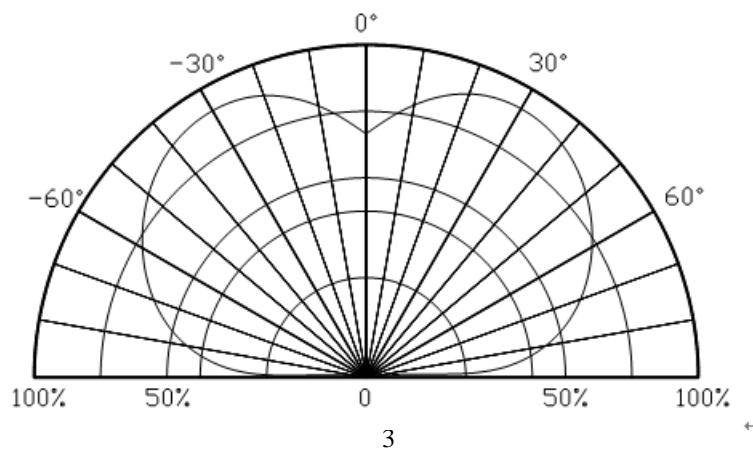
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics





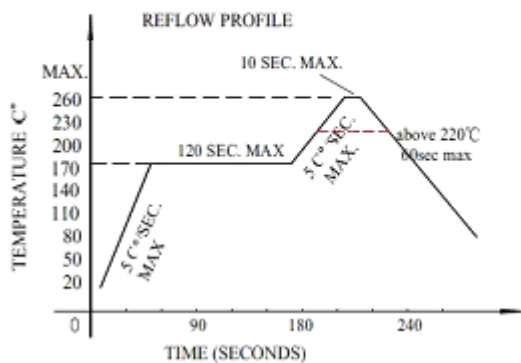
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Precautions For Use :
Over - current - proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen)
Storage
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$, 60%R.H. Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating regent. Considering the tape life, we suggest our customers to use our products within 1.5 year (from production date) .
3. It's recommended to bake before soldering when the package is unsealed after 72 hrs. The condition is : $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 15hrs.

■ Reflow Temp/Time

■ Temperature-profile (Surface of circuit board)

Use the following conditions shown in the figure.



NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■ Soldering iron

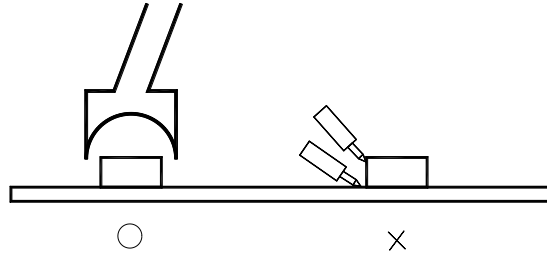
Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .

■ Rework

1. Customer must finish rework within 5 sec under 260°C .
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



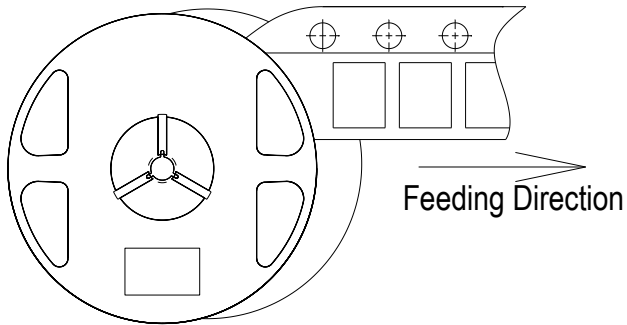
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- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow 、 solder etc.

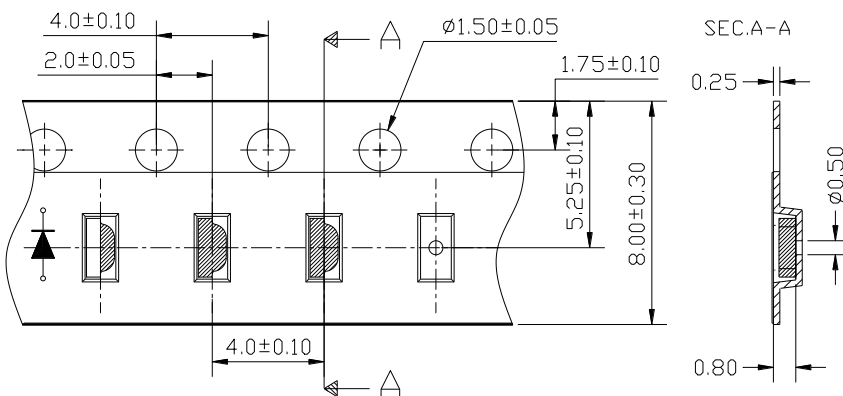


Feeding Direction



Tape specifications

(Units:mm)



Tape specifications

