



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : Q5060LAH4-3

5060 Package 5.0*6.0mm TOP LED 3 Chips

Features :

- 5.0 x 6.0mm Top LED
- Compatible with automatic placement equipment
- Compatible with reflow solder process
- Package: 1000 pieces per reel

Applications :

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

Dice material	Emitted color	Lens Color
AlGaInP	Red	Water Clear

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Luminous Intensity	Iv	IF=20mA*3		1200		mcd
Dominant Wavelength	λD	IF=20mA*3		625		nm
Viewing Angle	$2\theta 1/2$	IF=20mA*3		120		Deg
Forward Voltage	Vf	IF=20mA*3		2.0	2.4	V
Reverse Current	IR	VR=5V			10	μA

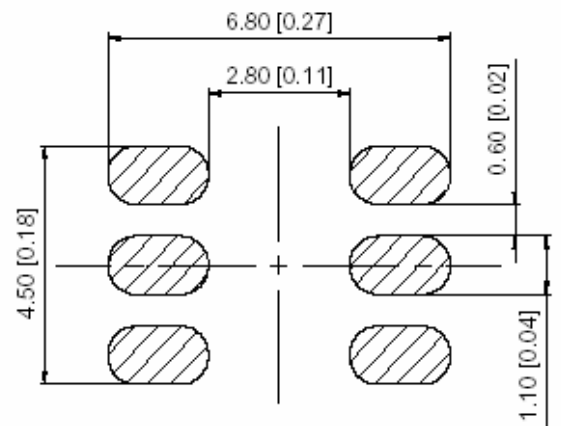
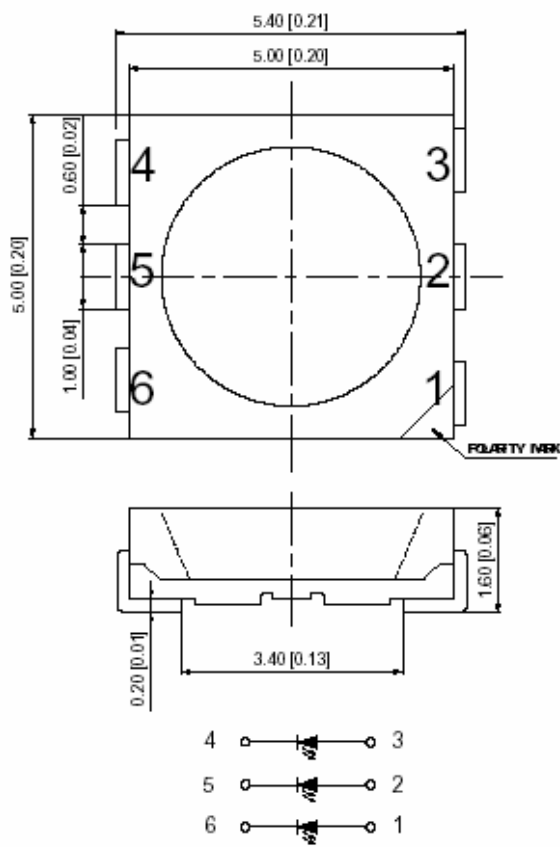
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Maximum	Unit
Power Dissipation	Pd	315	mW
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	IF(Peak)	300	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Derating Linear From 25°C			mA/°C
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +100	°C



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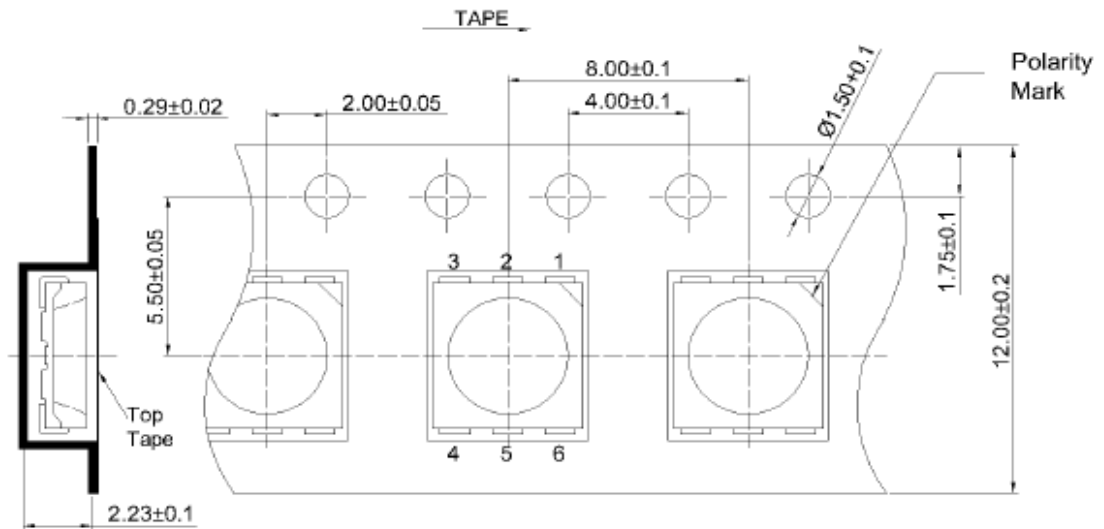
● Package Dimensions



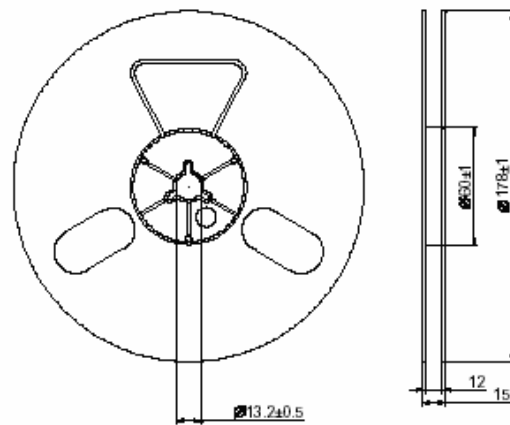


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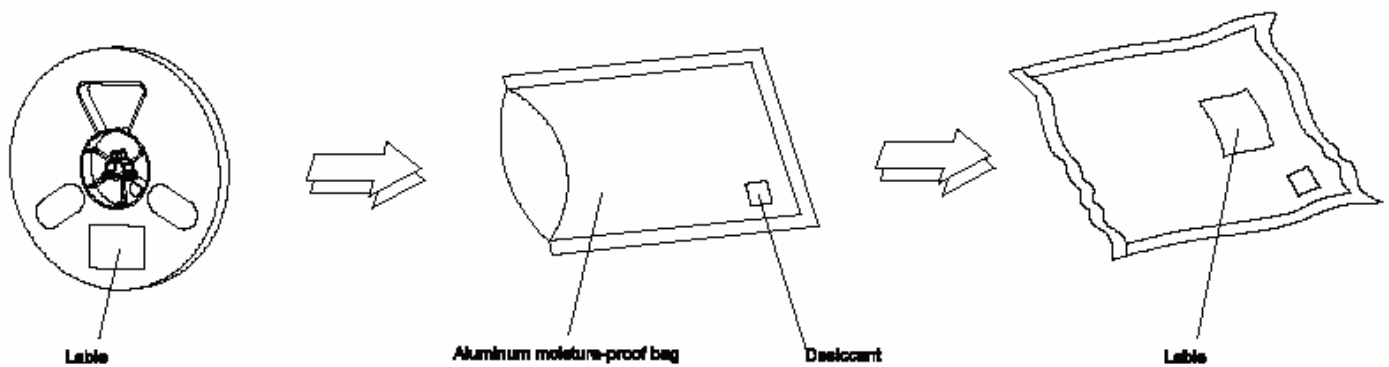
Tape Specifications (Units : mm)



Reel Dimensions



Moisture Resistant Packaging



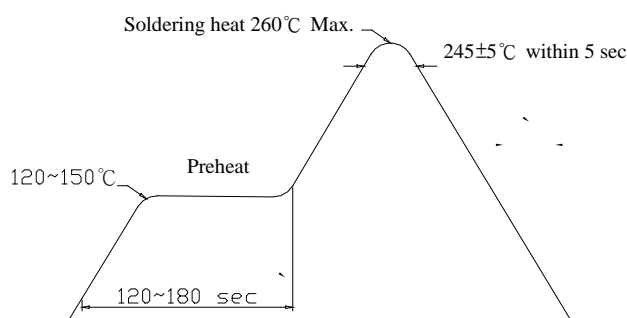


● Descriptions :

- The Chip-LED Taping is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, lightweight makes them ideal for miniature application, etc.

● Soldering heat reliability (DIP) :

Please refer to the following figure :



● Precautions For Use :

- Over - current - proof

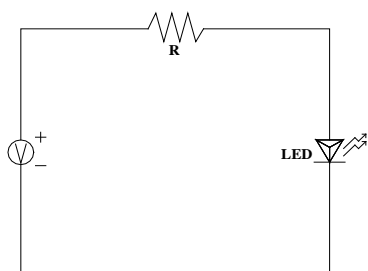
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen)

- Storage

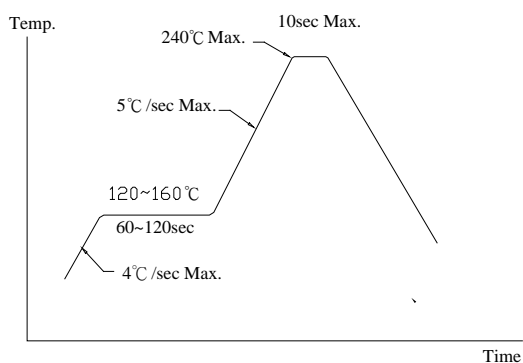
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$, $60\%\text{R.H. Max.}$.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating reagent. Considering the tape life, we suggest 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.



● Test Circuit



● Reflow Temp. / Time :



● Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

No.	Items	Test Condition	Test Hours/Cycles	Sample Size
1	Solder Heat	TEMP : 260°C±5°C	5 sec	48 pcs
2	Temperature Cycle	90°C ~ 25°C ~ -30°C ~ 25°C 30m 5m 30m 5m	300Cycles	48 Pcs
3	Thermal Shick	100°C ~ -55°C 10m 10m	100Cycles	48 Pcs
4	Operation Life	If=20mA	1000 Hrs	48 Pcs
5	High Temperature Storage	Temp:90°C	1000Hrs	48 Pcs
6	Low Temperature Storage	Temp:-30°C	1000Hrs	48 Pcs
7	High Temperature/High Humidity	80°C / R.H80%	1000Hrs	48 Pcs