

## SMD 5730 0.5W Series Data Sheet

### SOL-5730X050-03



**SOL-5730W050-03**

**Warm White**

**SOL-5730N050-03**

**Nature White**

**SOL-5730C050-03**

**Cool White**

## ➤ Features:

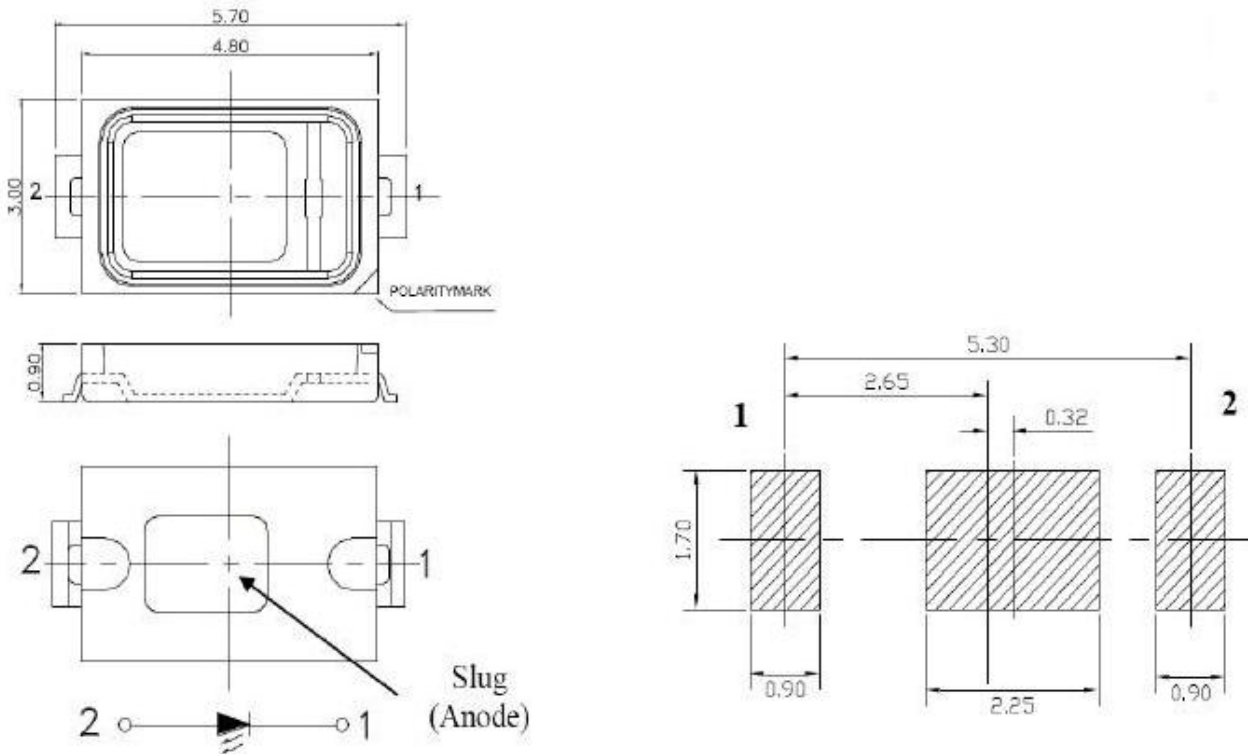
- Super high efficiency
- High reliability performance
- Viewing angle 120°
- Suitable for all SMT assembly and solder process
- Complied with RoHS directive

## ➤ Application:

- Indoor lighting
- Outdoor lighting
- Entertainment lighting
- Commercial lighting



## ➤ Outline Dimensions:



Soldering pads reference

## Note:

- Tolerance is  $\pm 0.1\text{mm}$

## ➤ Flux Characteristics, T<sub>j</sub>=25°C:

Part Number	CCT (K)or Wavelength(nm)		LuminousFlux@150mA (Lm )		Viewing Angle (degrees)  2 θ <sub>1/2</sub>
	Min.	Max.	Min.	Max.	
	SOL-5730W050-03	2700K	3500K	50LM	
SOL-5730N050-03	3500K	4500K	55LM	75LM	120
SOL-5730C050-03	5000K	10000K	55LM	75LM	120

### Note:

- SOL maintains a tolerance of ±1nm for dominant wavelength measurements.
- SOL maintains a tolerance of ±<sup>[SEP]</sup>5% for CCT measurements.
- SOL maintains a tolerance of ± 5% on flux and power measurements<sup>[SEP]</sup>.

## ➤ Electrical Characteristics, T<sub>j</sub>=25°C:

Part Number	Forward Voltage V <sub>F</sub> (V) @150mA		
	Min.	Typ.	Max.
SOL-5730W050-XX	2.8	3.0	3.5
SOL-5730N050-XX	2.8	3.0	3.5
SOL-5730C050-XX	2.8	3.0	3.5

### Note:

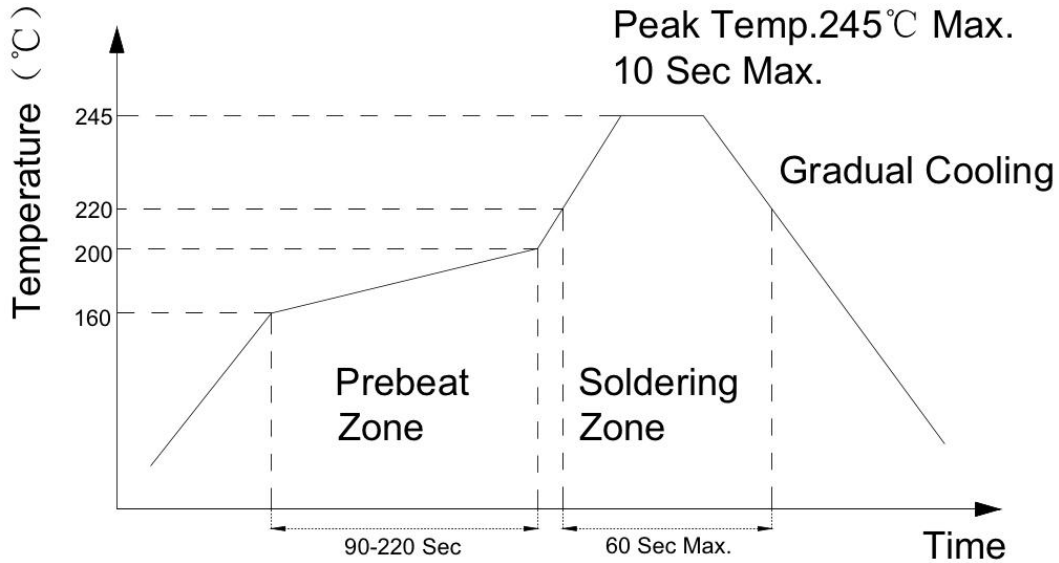
- SOL maintains a tolerance of ±0.1v for Voltage measurements.

## ➤ Absolute Maximum Ratings:

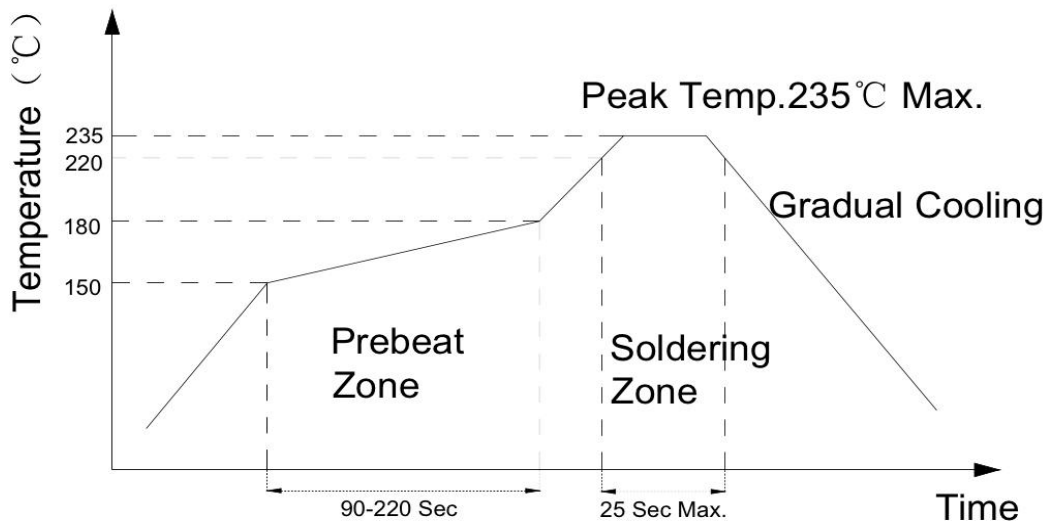
Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
Power Dissipation	Pd			750	mW
Reverse Voltage	VR	IR = 30μA	5		V
Pulse Current	IFp	Duty=0.1,1kHz		500	mA
Forward Current	IFm			200	mA
Operating Temperature	Topr		-40	+85	°C
Storage Temperature	Tstr		-40	+100	°C

## ➤ IR reflow soldering Profile :

Lead Free solder



Lead solder



## NOTES:

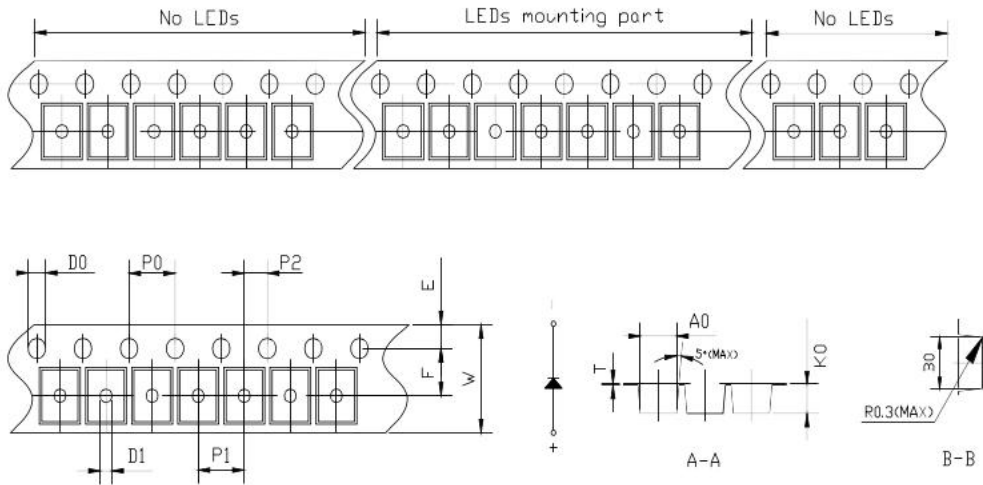
- We recommend the reflow temperature 240°C±5°C.
- Don't cause stress to the silicone resin while it is exposed to high temperature.
- Number of reflow process shall be 1 time.

## ➤ Test items and results of reliability:

Test Item	Test Conditions	Duration/ Cycle	Number of damage	Reference
Temperature	-40° C 30min ↑↓25° C(2min) 100° C 30min	100 times	0/100	JEITA ED-4701300 303
Thermal Shock	40° C 30min ↑↓ 5sec 100° C 30min	100 times	0/100	JEITA ED-4701200 303
High Temperature Storage	Ta=100° C	1000 hours	0/100	EIAJED-4701200 201
Humidity Heat Storage	Ta=85° C RH=85%	1000 hours	0/100	EIAJED-4701100 103
Low Temperature Storage	Ta=-40° C	1000 hours	0/100	EIAJED-4701200 202
Room Temperature Test	Ta=25° C IF=60mA	1000 hours	0/100	Tested with SOL standard
High Humidity Heat Test	60° C RH=90% IF=60mA	1000 hours	0/100	Tested with SOL standard
Low Temperature Test	Ta=-40° C IF=60mA	1000 hours	0/100	Tested with SOL standard
ESD(HBM)	-4KV at 1.5KΩ; 100pF	3 times	0/100	MIL-STD-883D

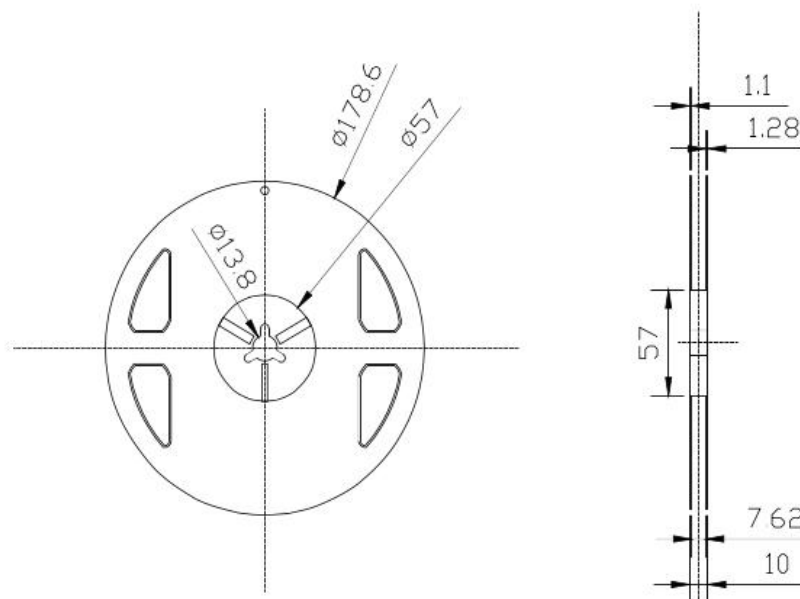
## ➤ Packaging:

### 1. Dimension of Tape (Unit: mm)



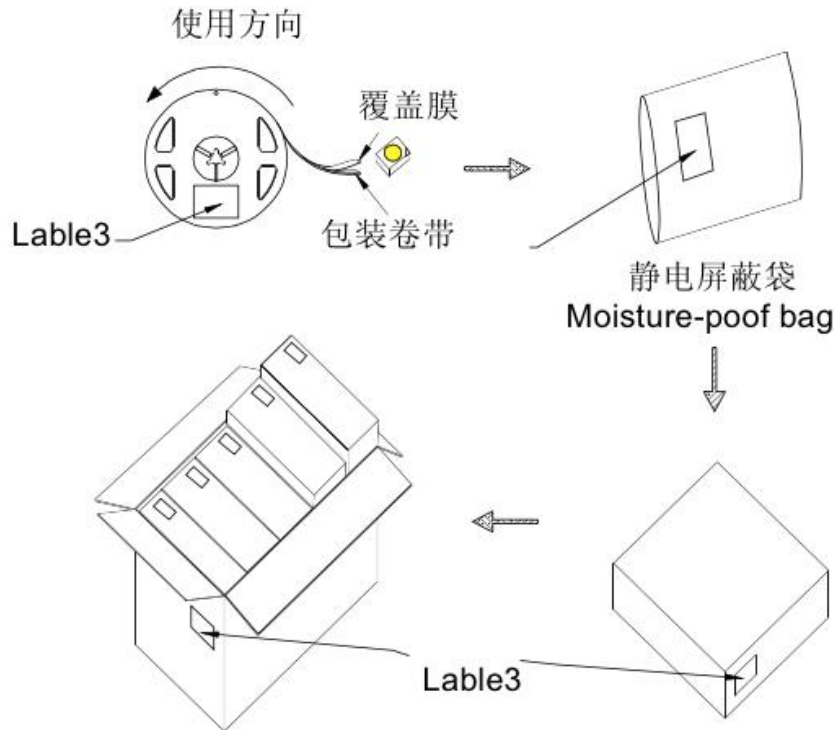
symbol	A0	B0	K0	P0	P1	P2	mode	unit
spec	3.15±0.10	3.80±0.10	2.10±0.10	4.00±0.10	4.00±0.10	2.00±0.10		
symbol	W	T	E	F	D0	D1	2835	mm
spec	8.00±0.10	0.235±0.05	1.75±0.10	3.50±0.10	1.50 <sup>+0.10</sup> <sub>-0.00</sub>	1.00 <sup>+0.10</sup> <sub>0.00</sub>		

### 2. Dimension of Reel (Unit: mm)





Package (Unit: mm)



每个外箱装5个内箱  
外箱尺寸=425\*245\*273mm  
Outside box  
Maximums for inside  
boxes

每盒5袋  
内箱尺寸：247\*230\*75  
Inside box Maximums seven

## Thank You!

