

CHIP LED 1206 Series Data Sheet

SOL-1206X006-XX



SOL-1206R006-02

Red

SOL-1206Y006-02

Yellow

SOL-1206G006-03

Green

SOL-1206B006-03

Blue

➤ Features:

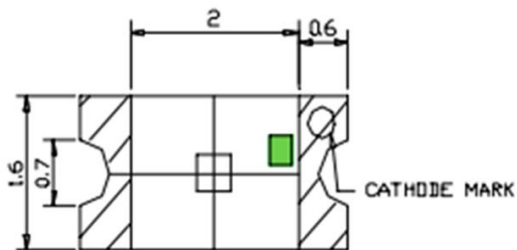
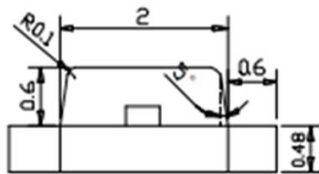
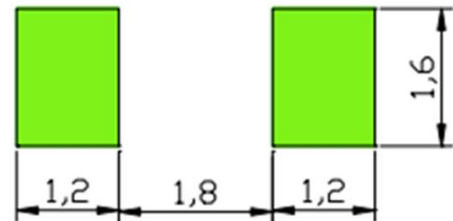
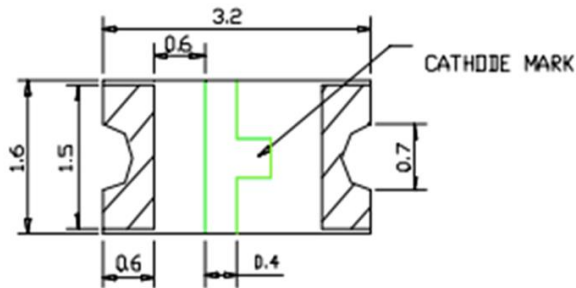
- Emitting Color: Red, Yellow, Green, Blue
- Super high efficiency
- High reliability performance
- Viewing angle 120°
- Suitable for all SMT assembly and solder process
- Complied with RoHS directive

➤ Application:

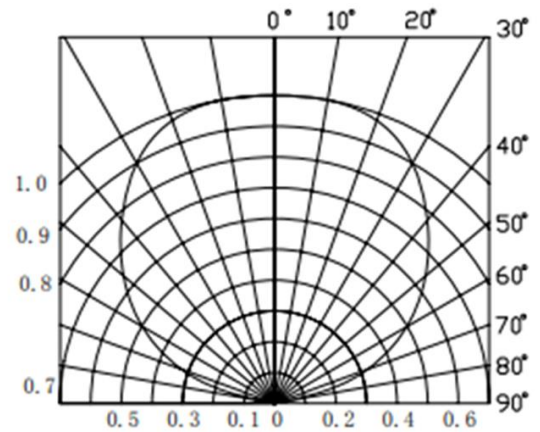
- Backlight of Mobile LCD Display
- Backlight of Machine Vision
- Backlight in Dashboard
- Backlight in Switch



➤ Outline Dimensions:



SPATIAL DISTRIBUTION



Note:

- Tolerance is 0.1mm

➤ Flux Characteristics, T_j=25°C:

Part Number	CCT (K)or Wavelength(nm)		LuminousFlux@20mA (Lm)(MCD)		Viewing Angle (degrees) 2 θ _{1/2}
	Min.	Max.	Min.	Max.	
SOL-1206R006-02	620nm	630nm	100MCD	200MCD	120
SOL-1206Y006-02	585nm	595nm	100MCD	200MCD	120
SOL-1206G006-03	515nm	530nm	300MCD	500MCD	120
SOL-1206B006-03	455nm	475nm	100MCD	200MCD	120

Note:

- SOL maintains a tolerance of ±1nm for dominant wavelength measurements.
- SOL maintains a tolerance of ±5% for CCT measurements.
- SOL maintains a tolerance of ± 5% on flux and power measurements.

➤ Electrical Characteristics, T_j=25°C:

Part Number	Forward Voltage V _F (V) @20mA		
	Min.	Typ.	Max.
SOL-1206R006-02	1.8	2.0	2.4
SOL-1206Y006-02	1.8	2.0	2.4
SOL-1206G006-03	2.8	3.0	3.5
SOL-1206B006-03	2.8	3.0	3.5

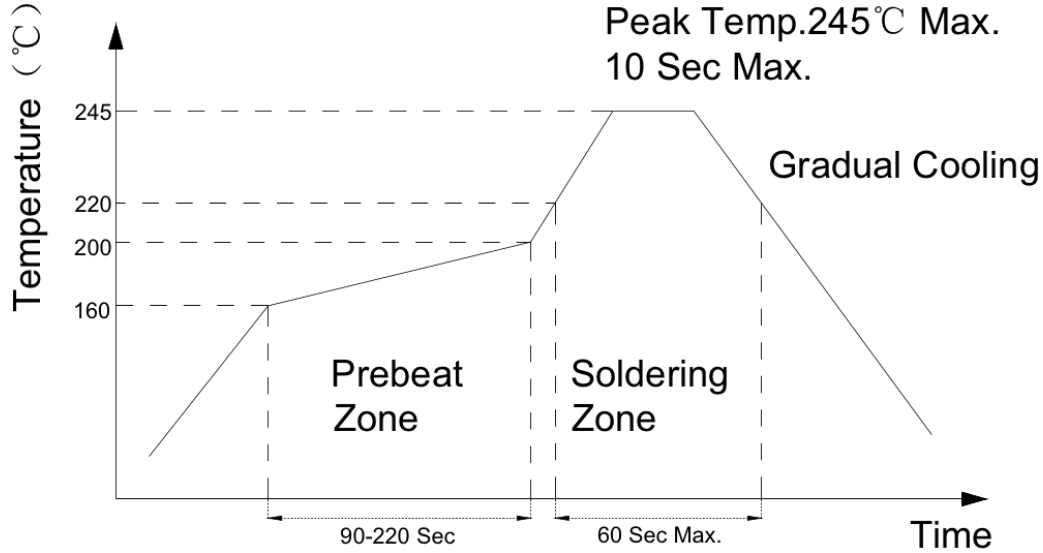
Note:

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

➤ Absolute Maximum Ratings:

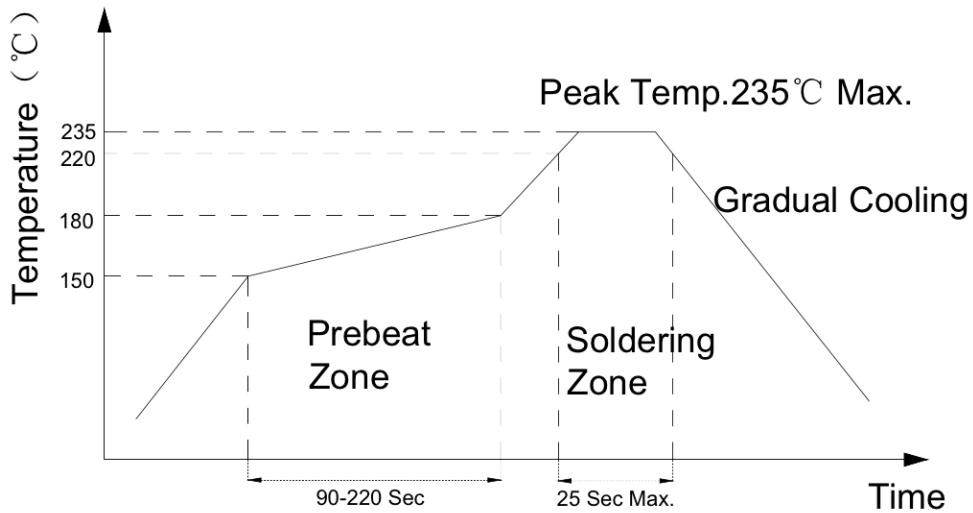
Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
Power Dissipation	Pd			60	mW
Reverse Voltage	VR	IR = 30μA	5		V
Pulse Current	IFp	Duty=0.1,1kHz		30	mA
Forward Current	IFm			20	mA
Operating Temperature	Topr		-40	+85	°C
Storage Temperature	Tstr		-40	+100	°C

➤ IR reflow soldering Profile:



Lead Free solder

Lead solder



NOTES:

1. We recommend the reflow temperature $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$.
2. Don't cause stress to the silicone resin while it is exposed to high temperature.
3. Number of reflow process shall be 1 time.

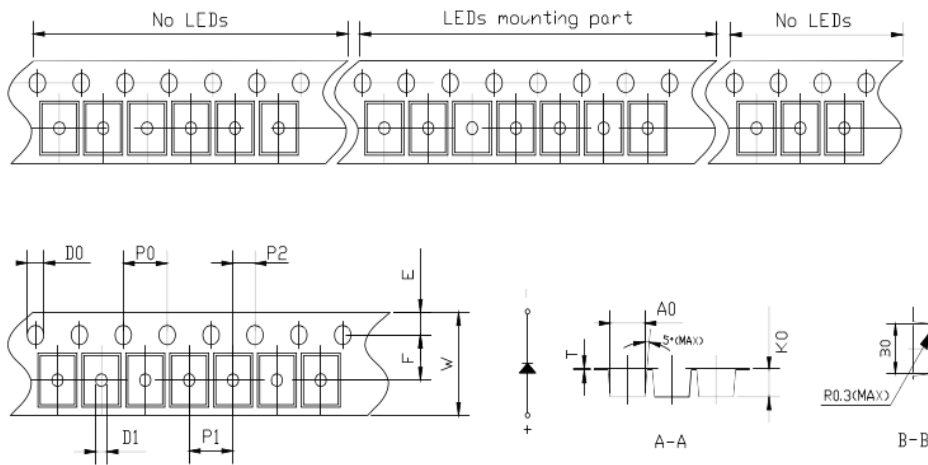
➤ **Test items and results of reliability:**

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=20mA	1000 hours	0/100	Tested with SOL standard
High Humidity Heat Test	60° C RH=90% IF=20mA	1000 hours	0/100	Tested with SOL standard
Low Temperature Test	Ta=-40° C IF=20mA	1000 hours	0/100	Tested with SOL standard

ESD(HBM)	-4KV at 1.5KΩ; 100pF	3 times	0/100	MIL-STD-883D
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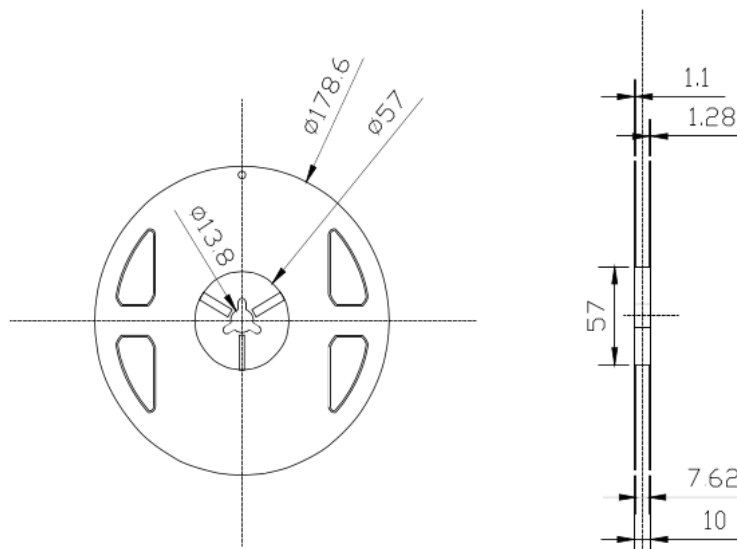
➤ Packaging:

1. Dimension of Tape (Unit: mm)

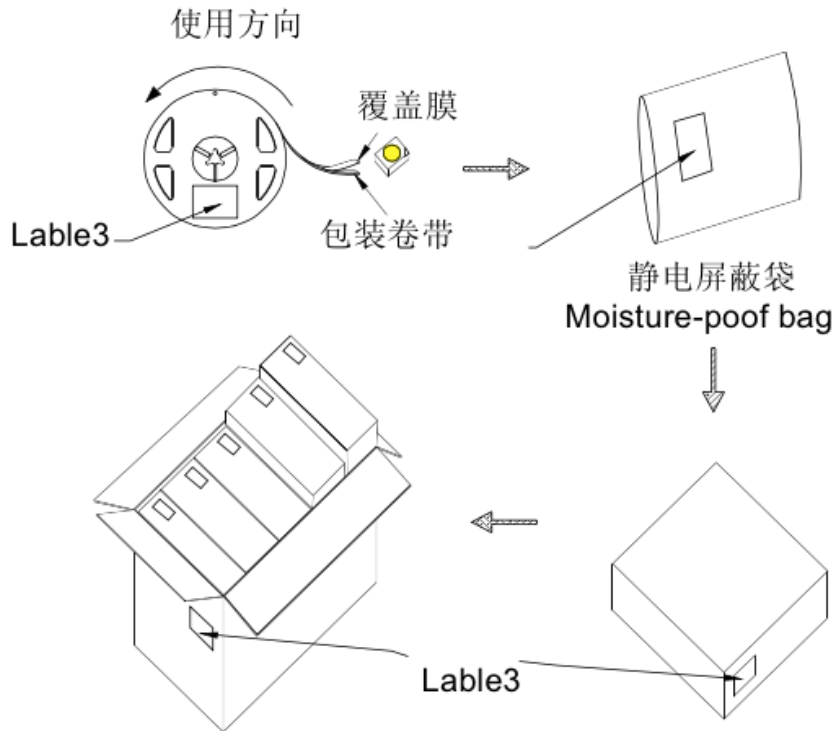


symbol	A0	B0	K0	P0	P1	P2	model	unit
spec	3.15±0.10	3.80±0.10	2.10±0.10	4.00±0.10	4.00±0.10	2.00±0.10		
symbol	W	T	E	F	D0	D1	2835	mm
spec	8.00±0.10	0.235±0.05	1.75±0.10	3.50±0.10	1.50 ^{+0.10} _{-0.00}	1.00 ^{+0.10} _{0.00}		

2. Dimension of Reel (Unit: mm)



3. Dimension of 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!

