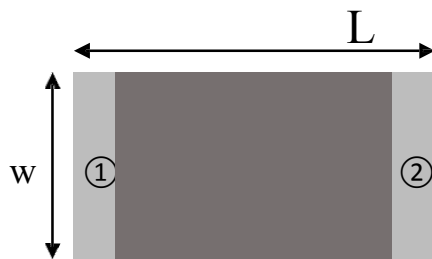


P/N: ZXL 160808SRF08**Features**

1. Surface mounted devices with a small dimension of $1.6 \times 0.8 \times 0.8$ mm meet future miniaturization trend.
2. Embedded and LTCC (low temperature co-fired ceramic) technology is able to integrate with system design as well as beautifying the housing of final product.
3. High stability and low tolerance.

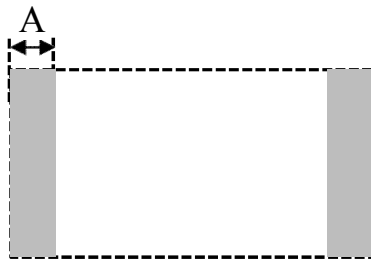
Applications

1. Bluetooth
2. Wireless LAN
3. ISM band 2.4GHz wireless applications

Dimensions (Unit: mm)

(Top View)

Number	Terminal Name
①	INPUT
②	NC



(Bottom View)



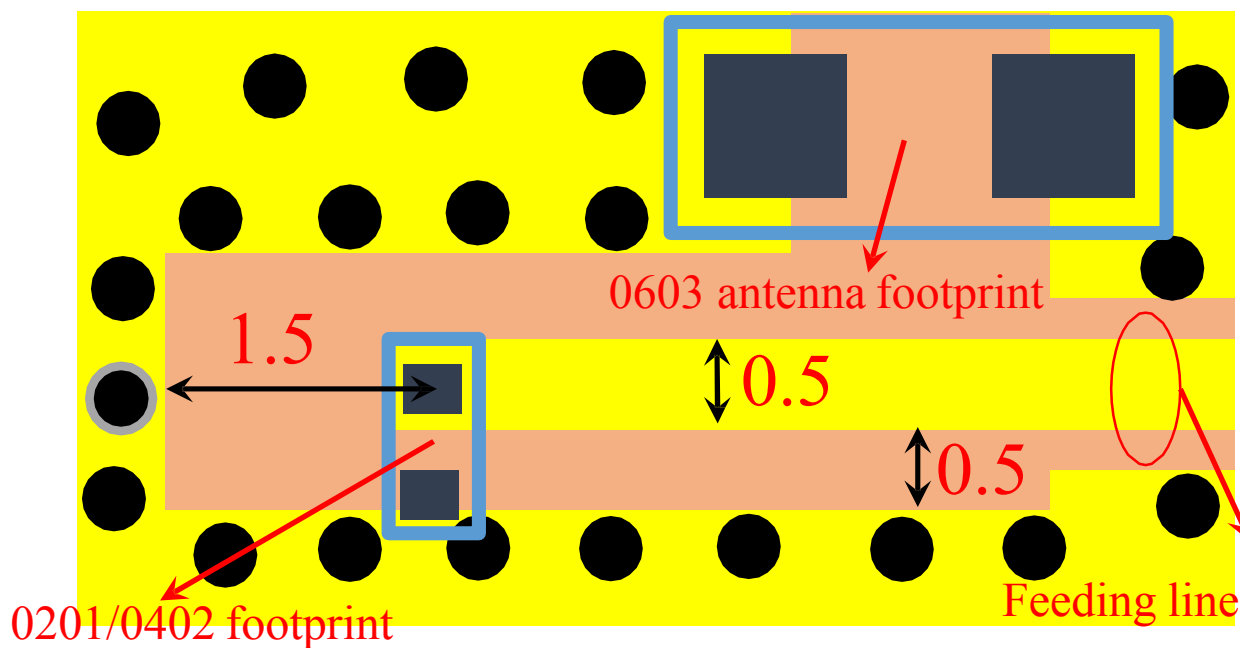
(Side View)

Symbols	L	W	T	A
Dimensions	1.60 ± 0.20	0.80 ± 0.20	0.80 ± 0.20	0.30 ± 0.10

Figure 1: Schematic diagram of the experimental setup. The diagram shows a rectangular area of size L by W (orange rectangle) on a yellow background with black dots. A red rectangle of size G by W is shown. A blue rectangle of size $0201/0402$ footprint is shown. A red arrow points to the footprint.

G

Unit:mm



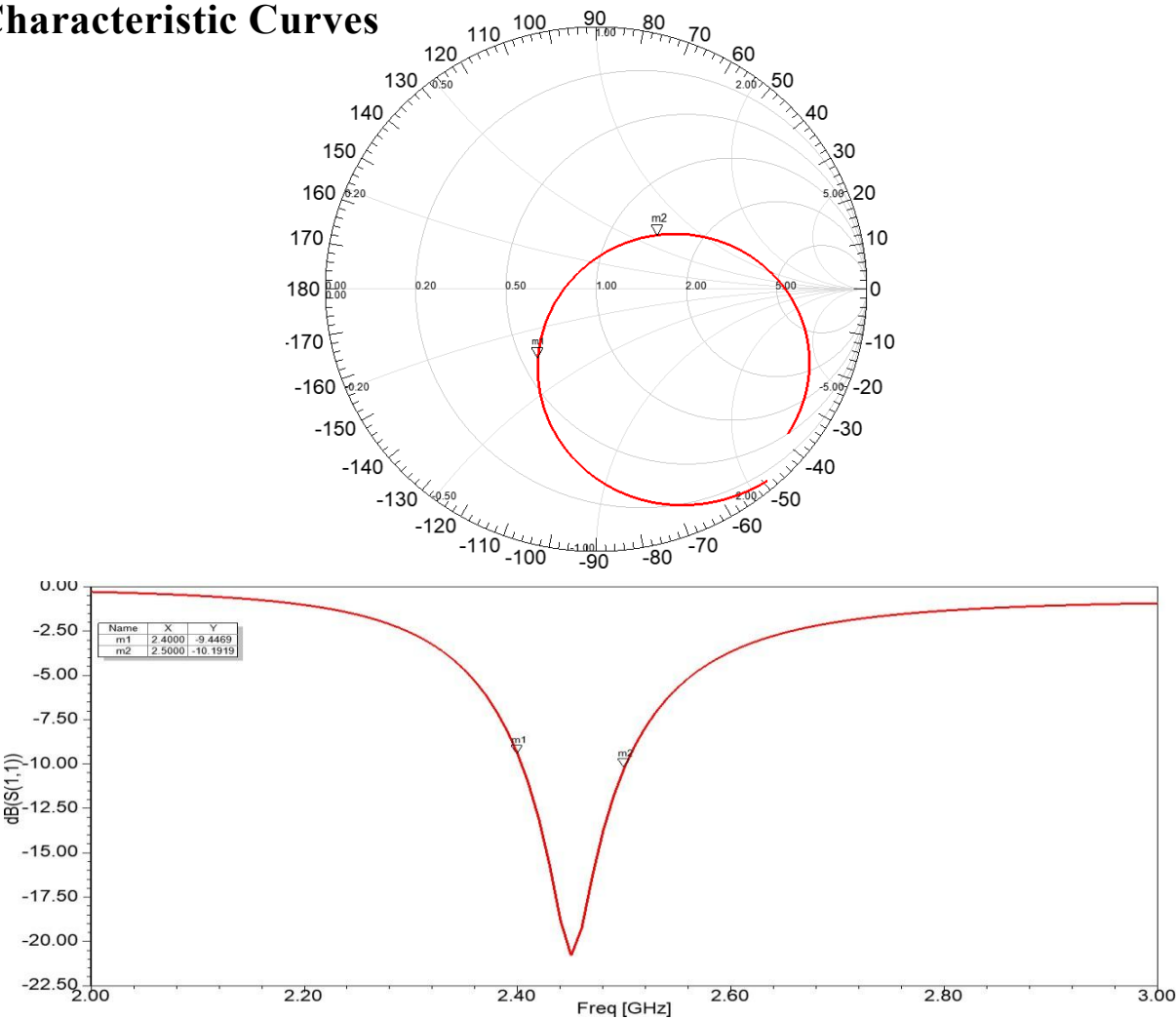
	测试项目/Test items	设备/equipment
1: S参数 S parameter	1. 回波损耗 Return loss 2. 驻波比 VSWR	网络分析仪/Network analyzer: A338/A333
2: 耦合功率测试 Active test	1. 发射功率 Transmitting power 2. 接收灵敏度 Receiving sensitivity	综合测试仪/Comprehensive test instrument: Agilent 8960/ CMW500
3: 辐射模式与增益 Radiation mode and gain	1. 辐射模式 Radiation mode 2. 天线增益 Gain	1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D

P/N: ZXL 160808SRF08

Electrical Characteristics
Features

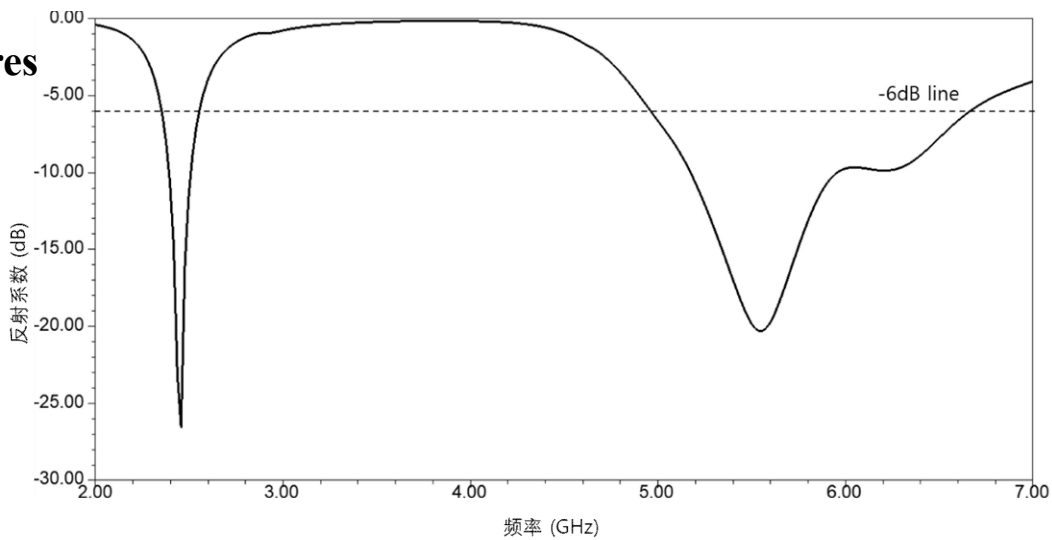
	Feature	Specification
1	Central frequency	2.45GHz
2	Bandwidth	>100MHz
3	Peak gain	3dBi
4	VSWR	<2
5	Polarization	Linear
6	Azimuth beamwidth	Omnidirectional
7	Impedance	50 Ω

Characteristic Curves

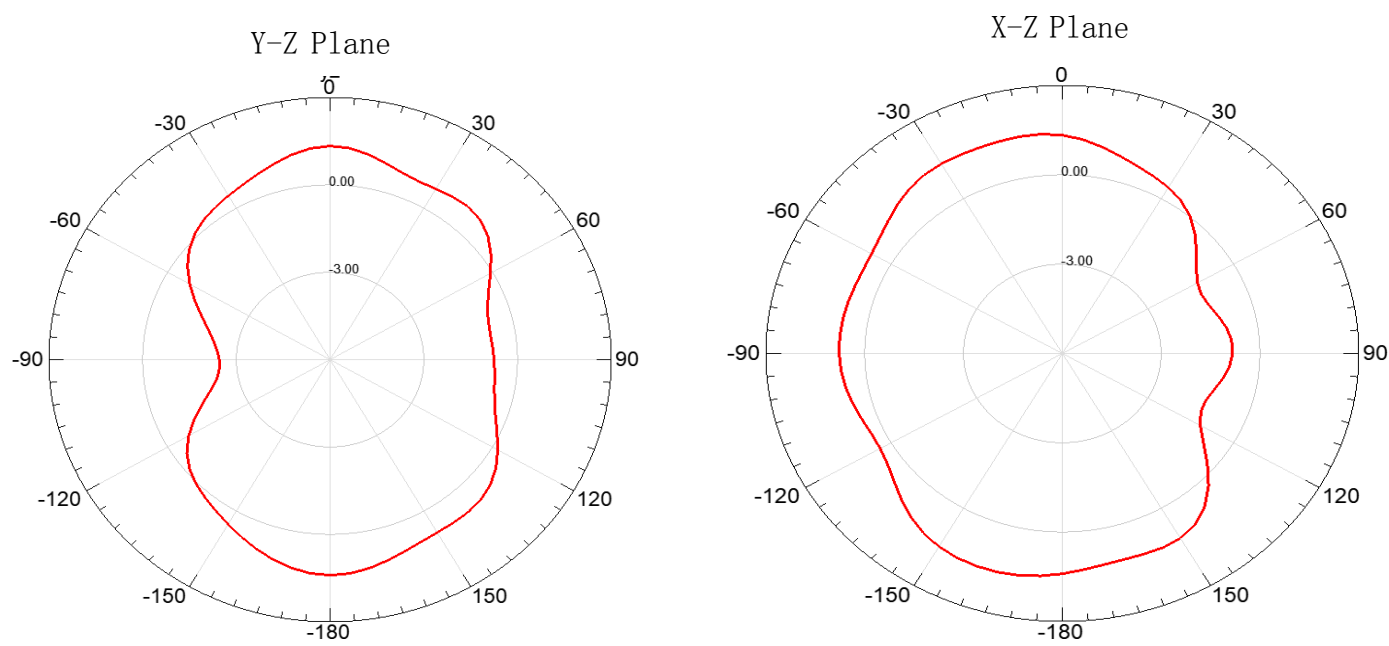


P/N: ZXL 160808SRF08

Features

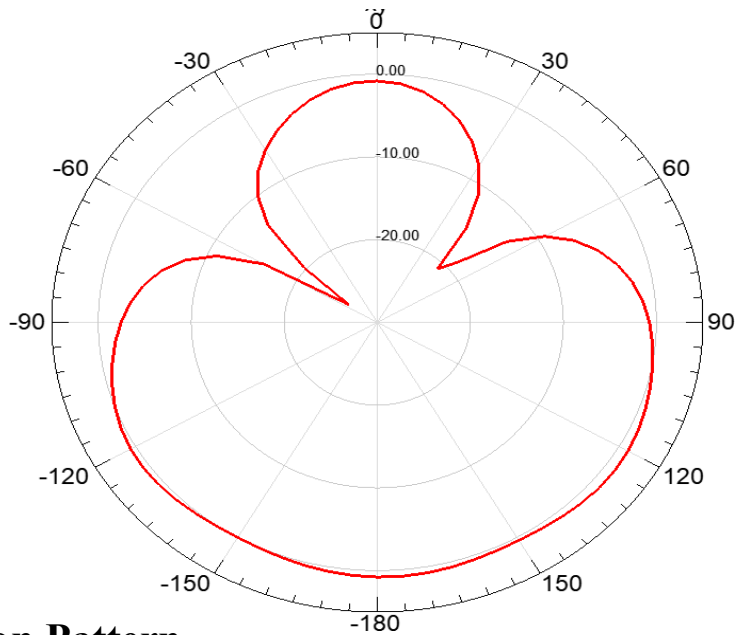


Radiation Pattern

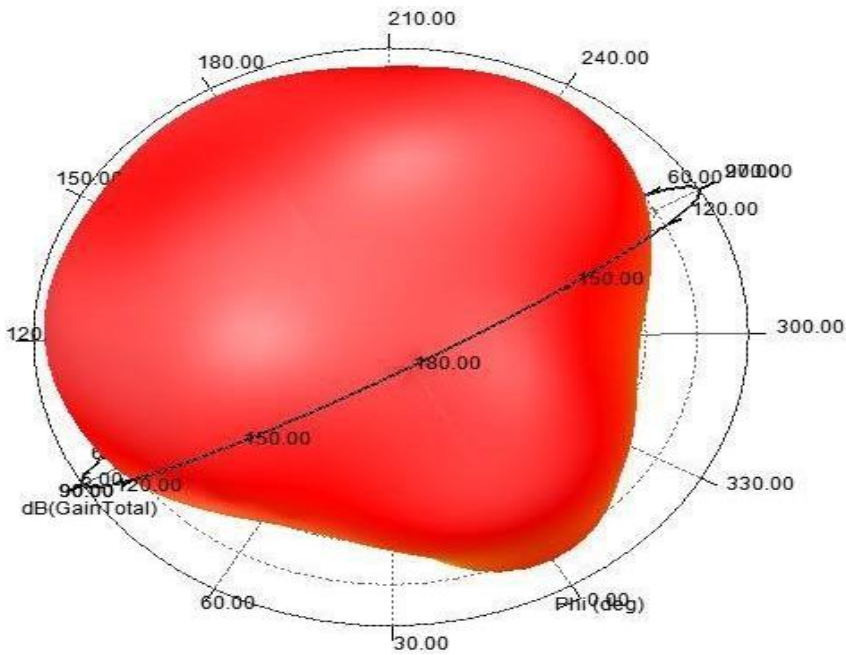


P/N: ZXL 160808SRF08

Features

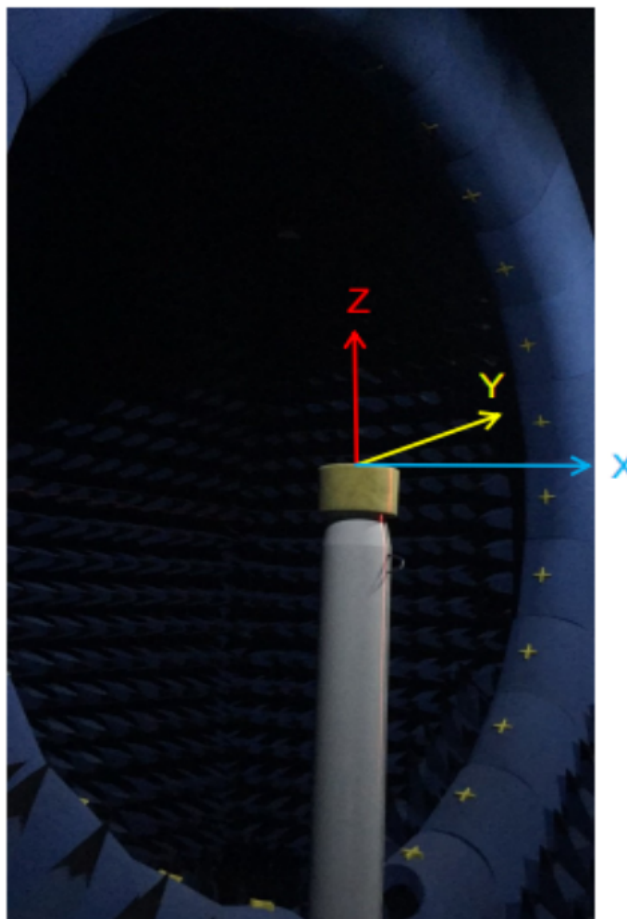


3D Radiation Pattern



P/N: ZXL 160808SRF08

Freq. (MHz)	Effi (%)	Gain (dBi)
2400	52.29	1.62
2410	52.17	1.71
2420	53.14	1.93
2430	54.16	1.98
2440	57.62	2.00
2450	59.64	3.00
2460	61.55	2.45
2470	60.64	2.38
2480	62.86	2.54
2490	59.85	2.30
2500	60.41	2.49



P/N: ZXL 160808SRF08**Dependability Test****Features**

Test Temperature	25°C±3°C
Operating Temperature	-25°C~+85°C
Temperature	5~40°C
Relative Humidity	20~70%

Moisture Proof

Temperature: 40±2°C Humidity: 90~95%RH

Duration: 500h

Recovery conditions: Room temperature Recovery Time: 24h (Class1) or 48h (Class2)

Solderability

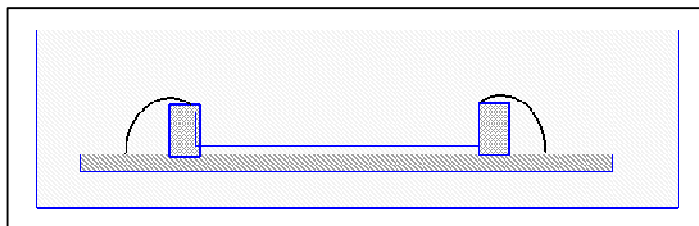
At least 95% of the terminal electrode is covered by new solder.

Preheating conditions: 80 to 120°C; 10~30s.

Solder Temperature: 235±5°C Duration: 2±0.5s, Solder Temperature: 245±5°C Duration: 2±0.5s

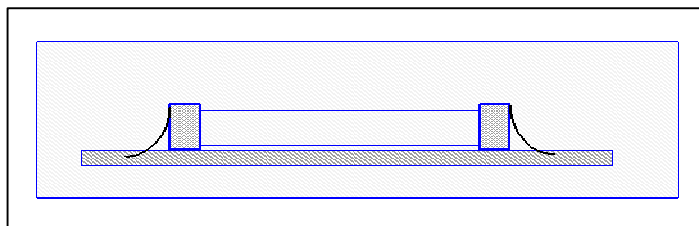
Optimum Solder Amount for Reflow Soldering

Too much solder



Cracks tend to occur due to large stress.

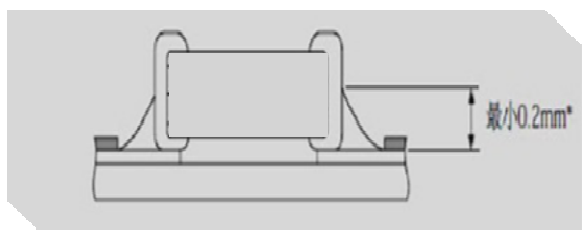
Not enough solder



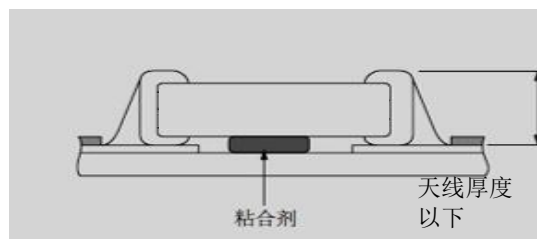
Weak holding force may cause bad connection between the chip and PCB.

Recommended Soldering Amounts

The optimal solder fillet amounts for re-flow soldering



The optimal solder fillet amounts for wave soldering



P/N: ZXL 160808SRF08

Temperature Cycle Test

- Features
- 10±1S Applied Force: 5N Duration: 10±1S

Preheating conditions: up-category temperature, 1h

Recovery time: 24±1h

Initial Measurement

Cycling Times: 5 times, 1 cycle, 4 steps:

阶段	温度 (℃)	时间 (分钟)
第 1 步	下限温度((NPO/X7R/X7S/X6S/X5R:-55 Y5V:-25 Z5U:-10))	30
第 2 步	常温 (+20)	2~3
第 3 步	上限温度((NPO/X7R/X7S:-125 Y5V/Z5U/X5R:-85 X6S:-105))	30
第 4 步	常温 (+20)	2~3

Resistance to Soldering Heat

- Preheating 80 to 120℃ ; 10~30s.Solder Temperature:235±5℃;

Duration:2±0.5s; Preheating100 to 200℃ ; 10±2min.

Solder Temperature: 265±5℃ ; Duration: 10±1s

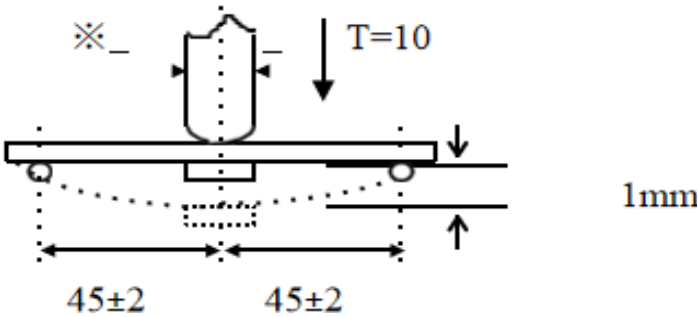
Clean the capacitor with solvent and examine it with a 10X(min.) microscope.

Recovery Time: 24±2h

Recovery condition: Room temperature
- Duration:2±0.5s;

Solder Temperature: 245±5℃

Resistance to Flexure of Substrate

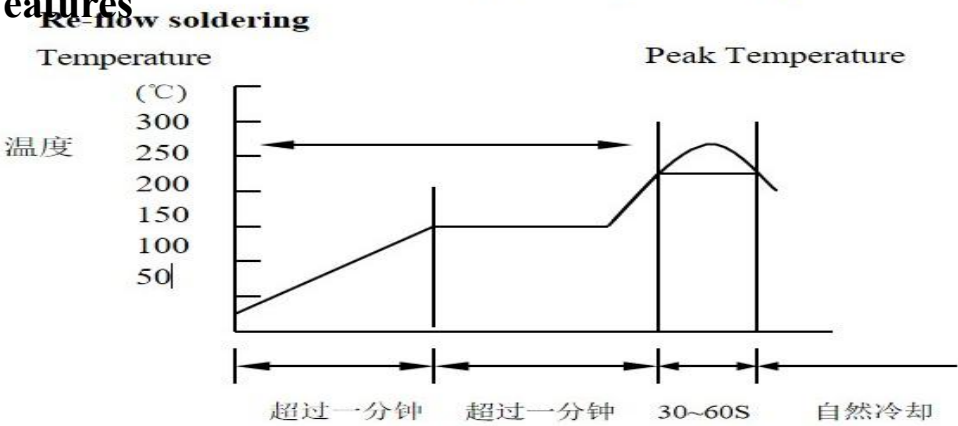


- Test Board: Al₂O₃ or PCB Warp: 1mm Speed: 0.5mm/sec.
- Unit: mm
- The measurement should be made with the board in the bending position.

P/N: ZXL 160808SRF08

Features

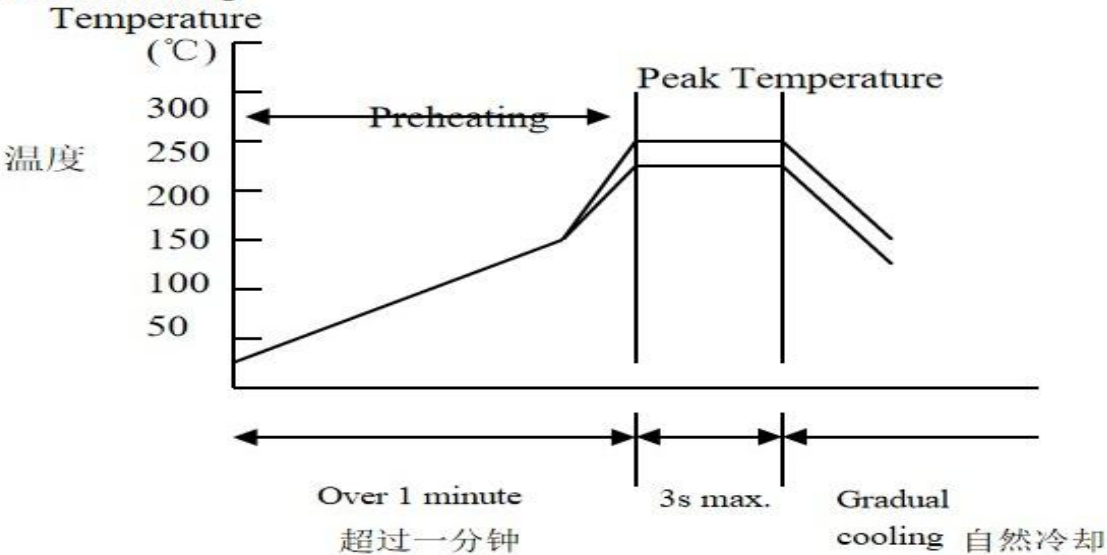
The temperature profile for soldering



	Pb-Sn 焊接 Pb-Sn soldering	无铅焊接 Lead-free soldering
尖峰温度 Peak temperature	230℃~250℃	240℃~260℃

While in preheating, please keep the temperature difference between soldering temperature and surface temperature of chips as: $T \leq 150^{\circ}\text{C}$.

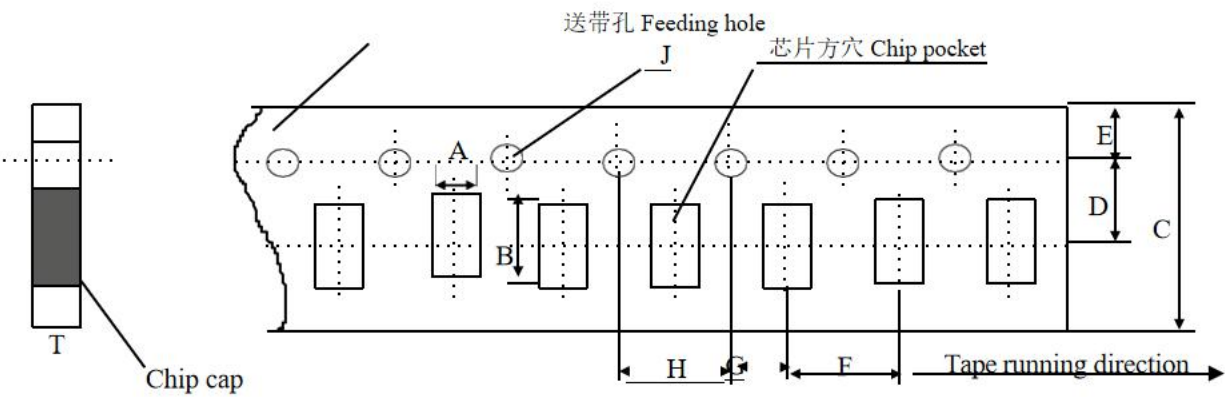
Wave soldering



	Pb-Sn 焊接 Pb-Sn soldering	无铅焊接 Lead-free soldering
尖峰温度 Peak temperature	230℃~260℃	240℃~270℃

P/N: ZXL 160808SRF08

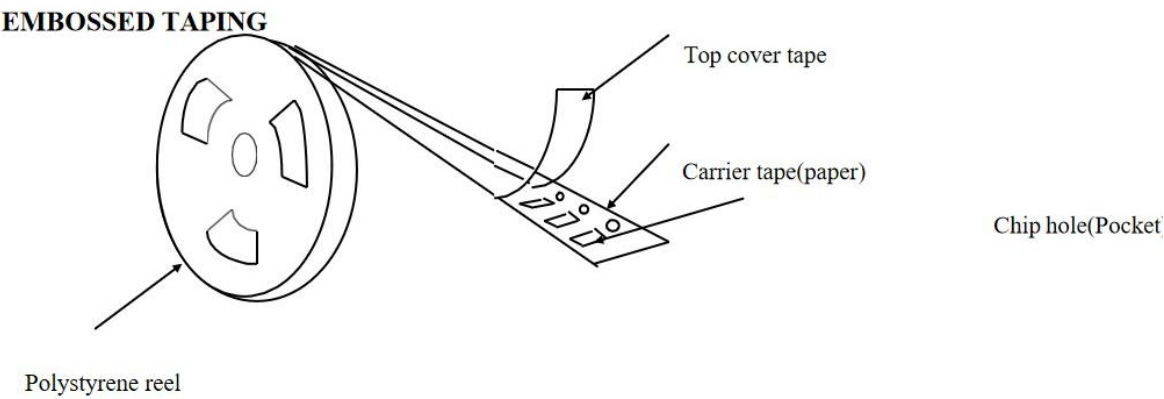
Dimensions of paper taping
Features



Unit: mm

代号Code	A	B	C	D*	E	F	G*	H	J	T
纸带规格 papersize										
尺寸	1.10 ±0.10	1.90 ±0.10	8.00 ±0.10	3.50 ±0.05	1.75 ±0.10	4.00 ±0.10	2.00 ±0.10	4.00 ±0.10	1.50 -0/+0.10	1.10 Max

Reel (4000 pcs/Reel)



Storage Period

The guaranteed period for solderability is 6 months (Under deliver package condition).
Temperature:5~40℃ /Relative Humidity:20~70%