

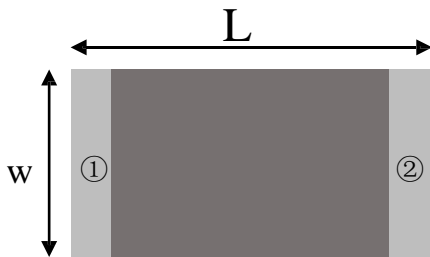
## Features

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

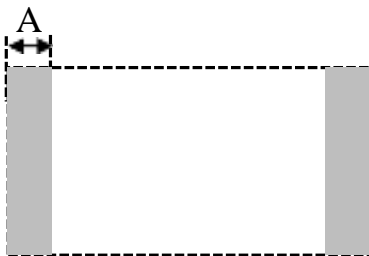
1. Bluetooth
2. Wireless LAN
3. ISM band 2.4GHz wireless applications

## Dimensions (Unit: mm)

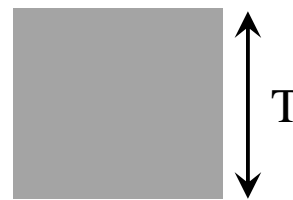


( Top View )

Number	Terminal Name
①	INPUT
②	NC



( Bottom View )



( Side View )

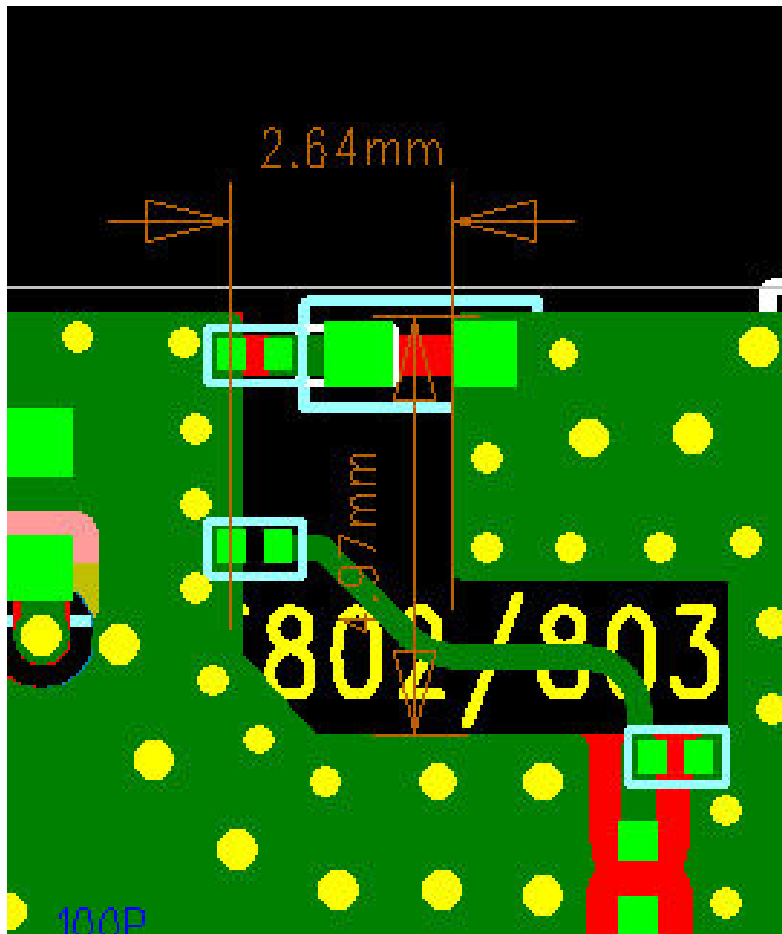
Symbols	L	W	T	A
Dimensions	$1.60 \pm 0.20$	$0.80 \pm 0.20$	$0.80 \pm 0.20$	$0.30 \pm 0.10$

## Inverted-L Antenna Specification

### Summary

ITEM	ANT SPEC					
Model Name	2.4G ANT					
Ant. Direction	Horizontal			Vertical		
	2400MHz	2450MHz	2500MHz	2400MHz	2450MHz	2500MHz
Gain (dBi)	-1.26	-0.76	-0.58	-5.25	-2.46	-1.86
Polarization	Horizontal and Vertical					
Azimuth Beam Pattern	Omni-directional					
Impedance	50 Ohm					
Antenna Length	34.10mm					
Manufacture	HY Antenna Co., Ltd.					

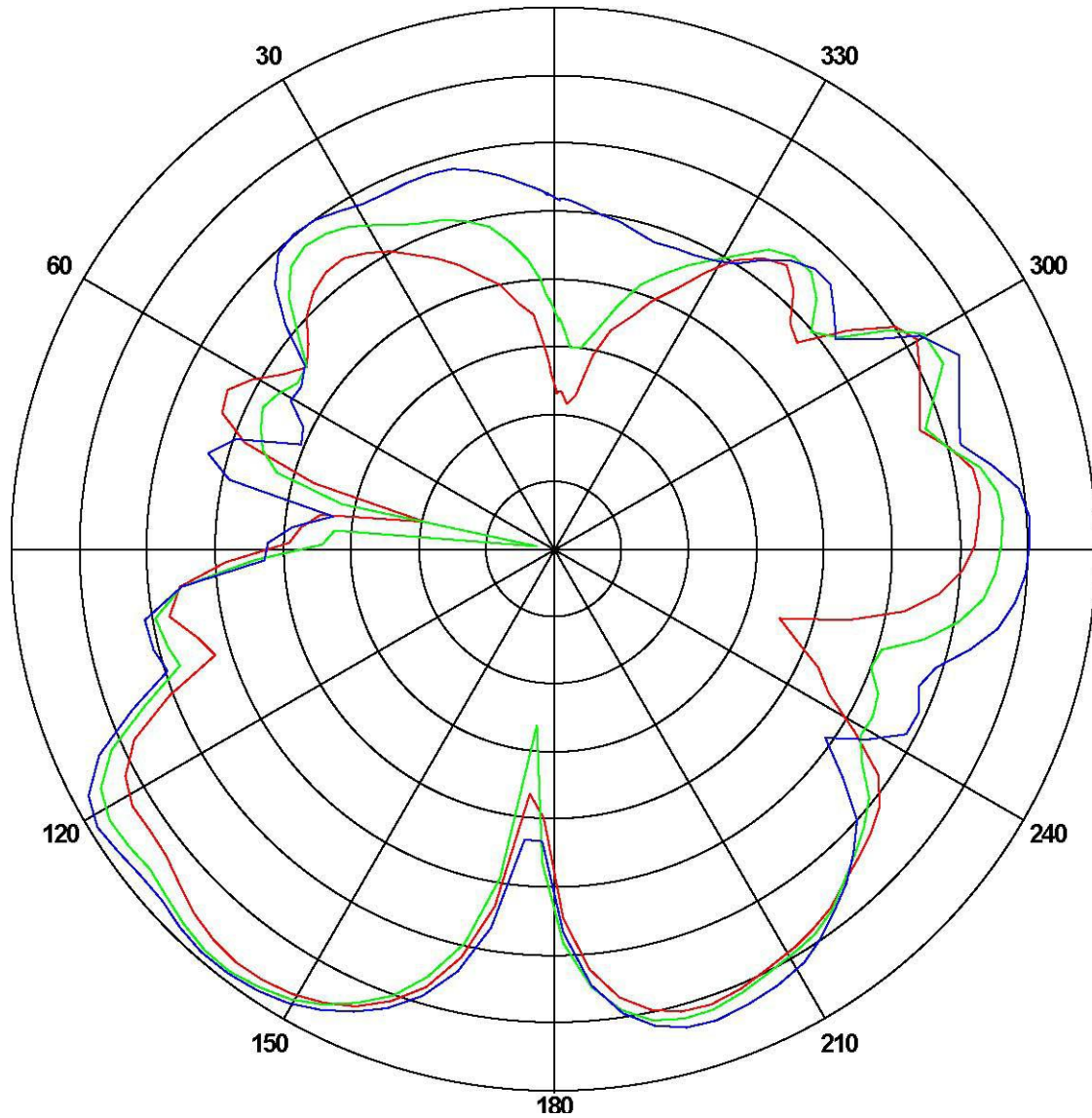
### Antenna Photo & Length (mm)



Horizontal: 2400 MHz 2450 MHz 2500 MHz

Gain (dBi)

Max: 0 Min: -40 Scale: 5/div

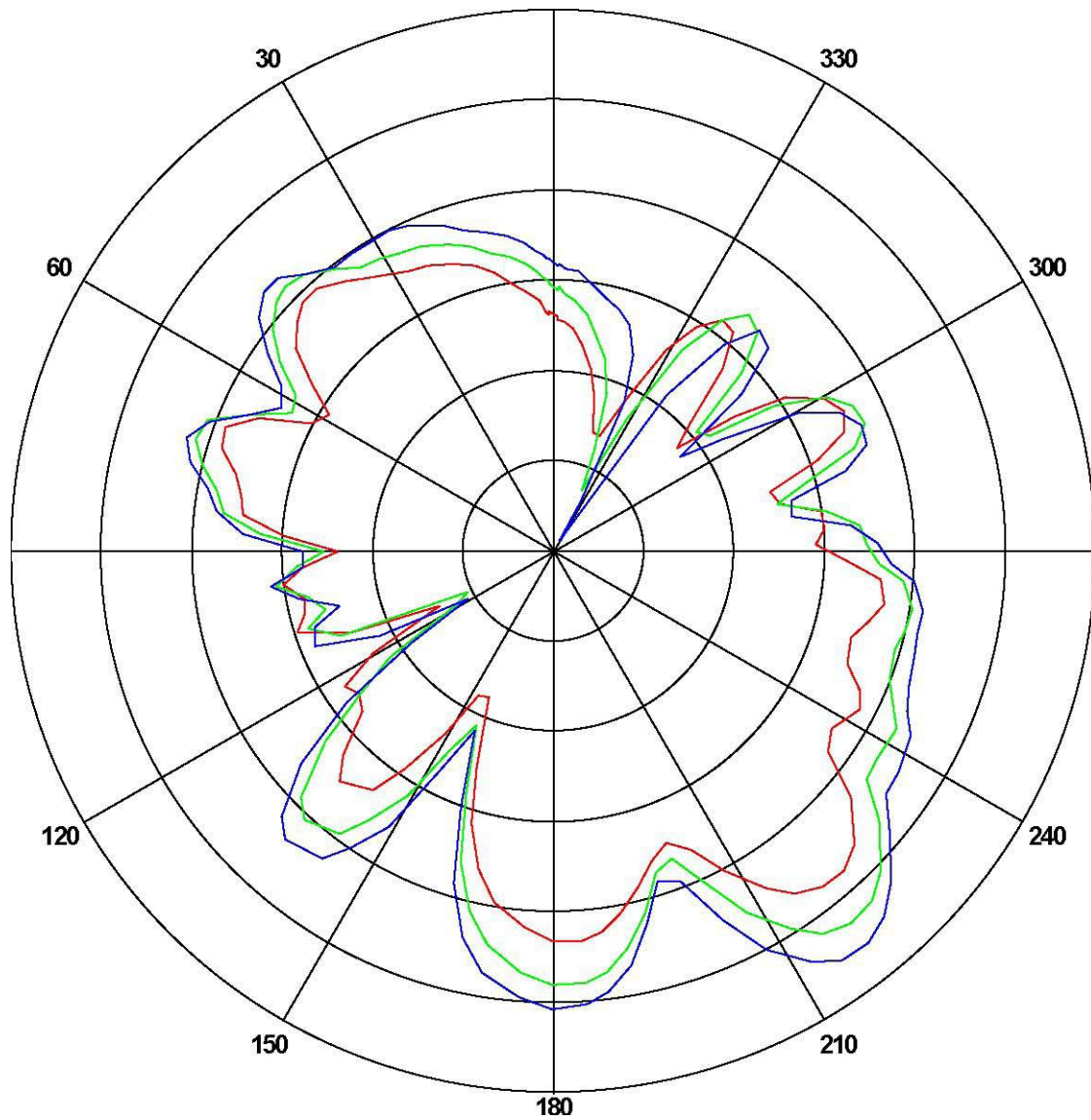


Frequency (MHz)	Gain(dBi)		
	Max	Min	Avg
2400	-1.26174	-30.0801	-7.18716
2450	-0.765802	-36.5604	-7.48023
2500	-0.585582	-22.0315	-6.59127

Vertical: 2400 MHz 2450 MHz 2500 MHz

Gain (dBi)

Max: 0 Min: -30 Scale: 5/div



Frequency (MHz)	Gain(dBi)		
	Max	Min	Avg
2400	-5.2537	-22.1424	-12.4294
2450	-2.4652	-24.5837	-10.4702
2500	-1.86120	-29.5214	-9.20432

ANT Test Labs: Attestation of Global Compliance Co., Ltd.

## Dependability Test

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

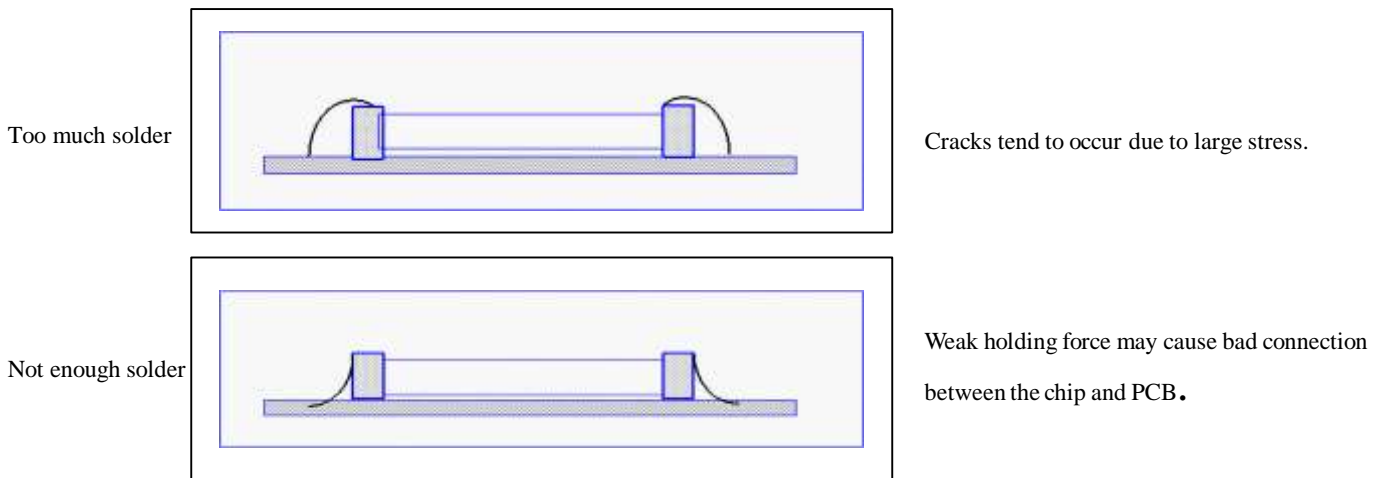
## Moisture Proof

Temperature: 40 ± 2°C Humidity: 90~95% RH  
Duration: 500h  
Recovery conditions: Room temperature Recovery Time: 24h (Class1) or 48h (Class2)

## Solderability

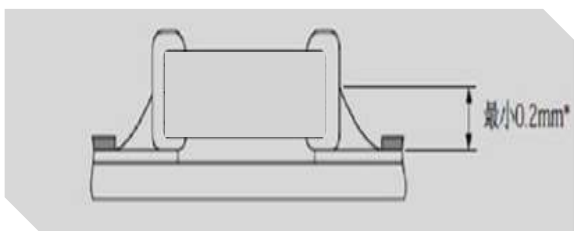
At least 95% of the terminal electrode is covered by new solder.  
Preheating conditions: 80 to 120°C; 10~30s.  
Solder Temperature: 235 ± 5°C Duration: 2 ± 0.5s, Solder Temperature: 245 ± 5°C Duration: 2 ± 0.5s

## Optimum Solder Amount for Reflow Soldering

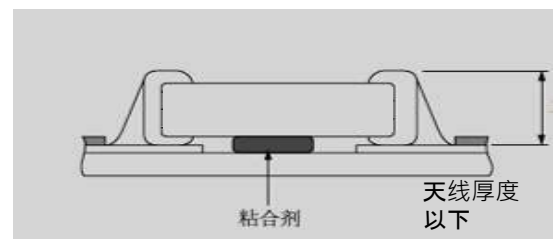


## Recommended Soldering Amounts

The optimal solder fillet amounts for re-flow soldering



The optimal solder fillet amounts for wave soldering



## Temperature Cycle Test

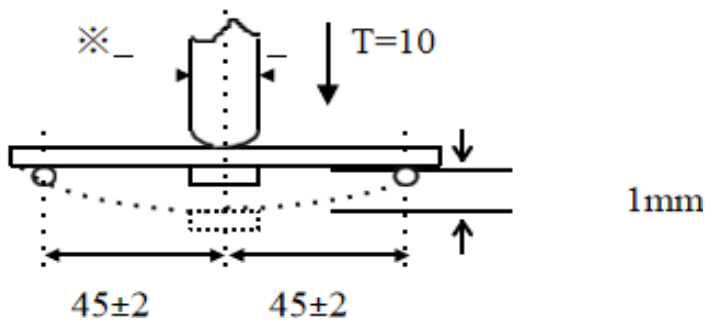
10±1S Applied Force: 5N Duration: 10±1S  
 Preheating conditions: up-category temperature, 1h  
 Recovery time: 24±1h  
 Initial Measurement  
 Cycling Times: 5 times, 1 cycle, 4 steps:

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

## Resistance to Soldering Heat

Preheating 80 to 120°C; 10~30s. Solder Temperature: 235±5°C; Duration: 2±0.5s; Solder Temperature: 245±5°C  
 Duration: 2±0.5s; Preheating 100 to 200°C; 10±2min.  
 Solder Temperature: 265±5°C; Duration: 10±1s  
 Clean the capacitor with solvent and examine it with a 10X(min.) microscope.  
 Recovery Time: 24±2h  
 Recovery condition: Room temperature

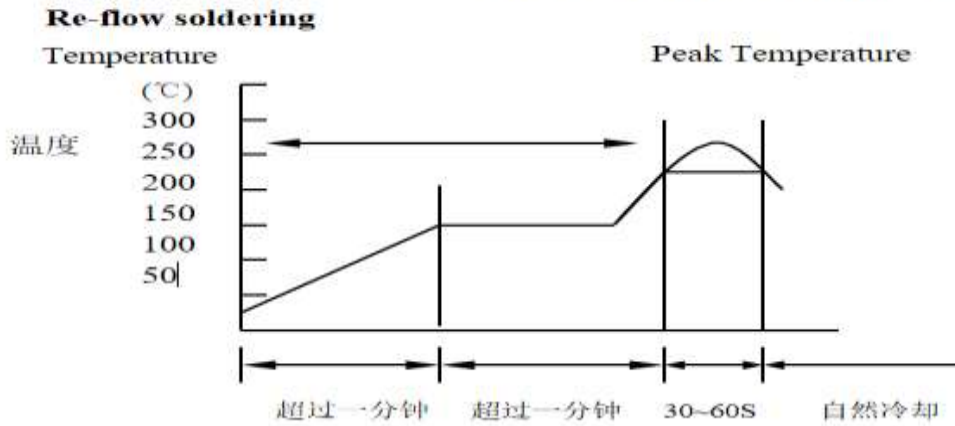
## Resistance to Flexure of Substrate



Test Board: Al<sub>2</sub>O<sub>3</sub> or PCB Warp: 1mm Speed: 0.5mm/sec.  
 Unit: mm

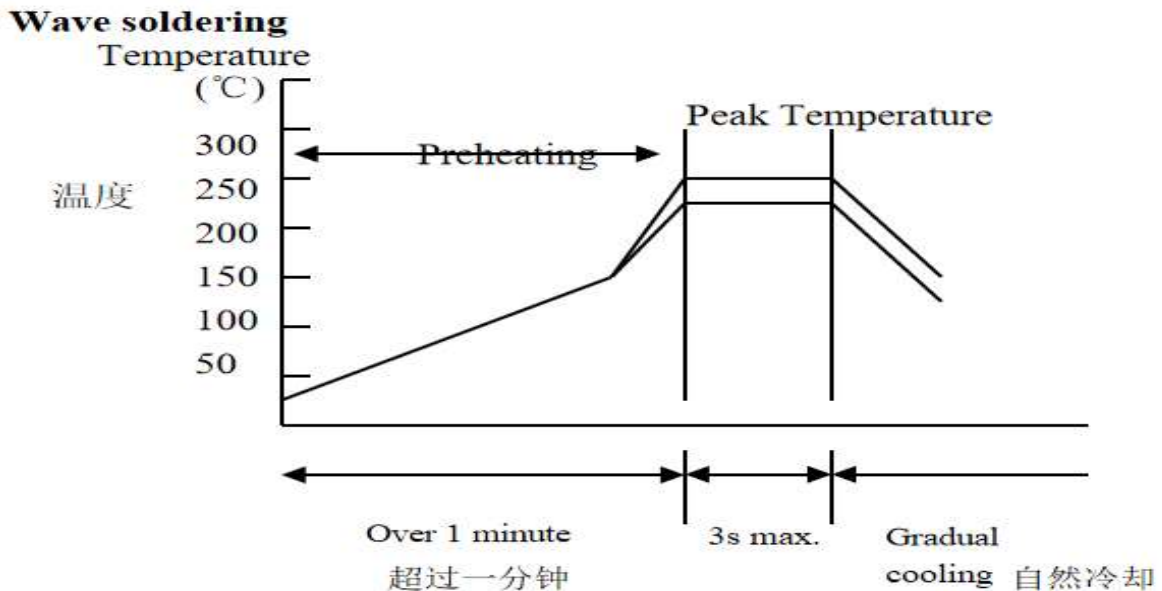
The measurement should be made with the board in the bending position.

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°C~250°C	240°C~260°C

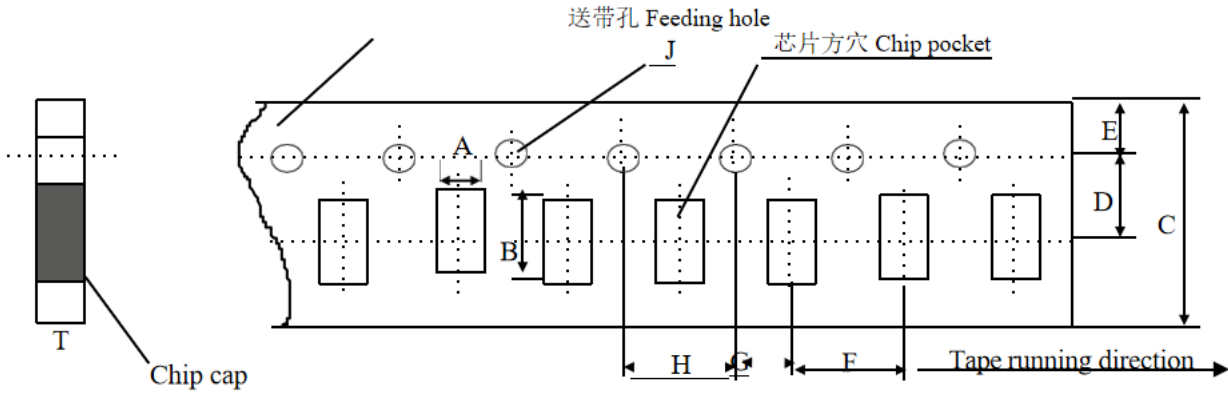
While in preheating, please keep the temperature difference between soldering temperature and surface temperature of chips as:  $T \leq 150^\circ\text{C}$ .



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

# P/N: HY160808 SRF08

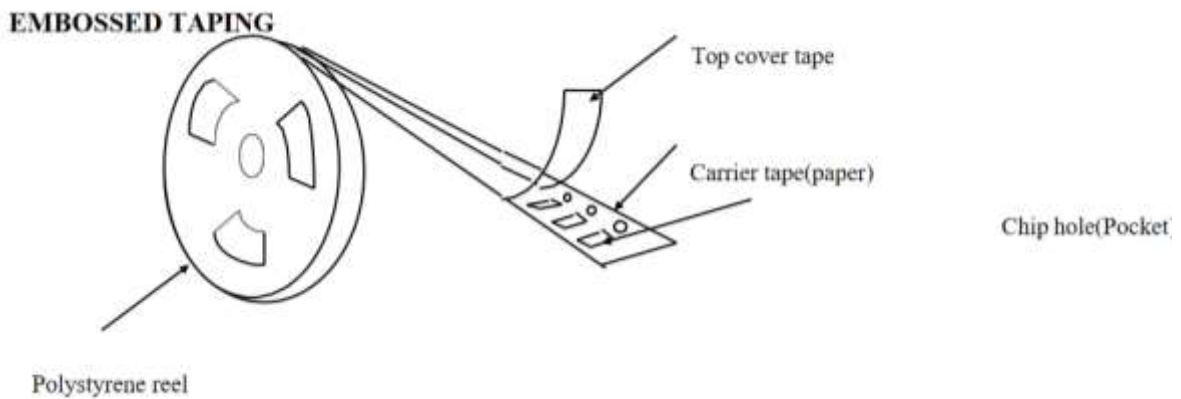
## Dimensions of paper taping



Unit : mm

代号 Code 纸带规格 papersize	A	B	C	D*	E	F	G*	H	J	T
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°C / Relative Humidity: 20~70%