

### Features

- Multilayer monolithic construction yields high reliability
- Low insertion loss and small size SMD chip design
- Can simplify your complex tuning and circuit design
- LTCC process
- Isolation resistor, external 100 ohms

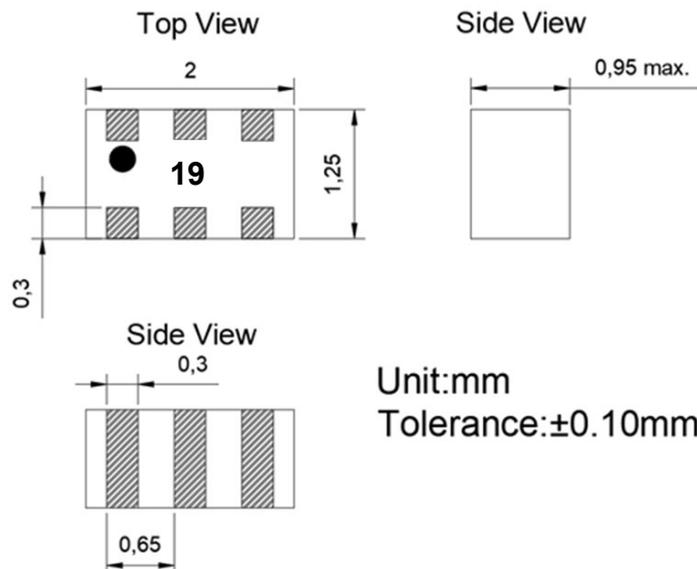
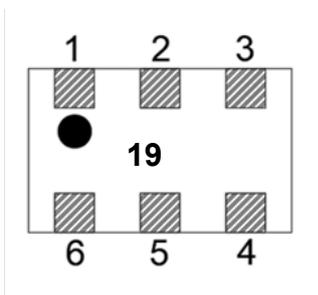
### Specifications

NO.	Items	Spec	Typ.	Unit
1	Frequency range	80~140	80~140	MHz
2	Insertion Loss, above 3.0 dB	1.0 max.	0.48	dB
3	Isolation.	10 min.	12.6	dB
4	Phase Unbalance	3 max.	1	°
5	Amplitude Unbalance	0.3 max.	0.1	dB
6	Return Loss (Input)	10 min.	12.9	dB
7	Return Loss (Output)	10 min.	13.9	dB

**Operating & Storage Condition (Component)**  
 Operation Temperature Range: -40°C ~ +85°C  
 Storage Temperature Range: -40°C ~ +85°C

**Storage Condition before Soldering (Included packaging material)**  
 Storage Temperature Range: +5 ~ +40 °C  
 Humidity: 30 to 70% relative humidity

### Construction & Dimensions



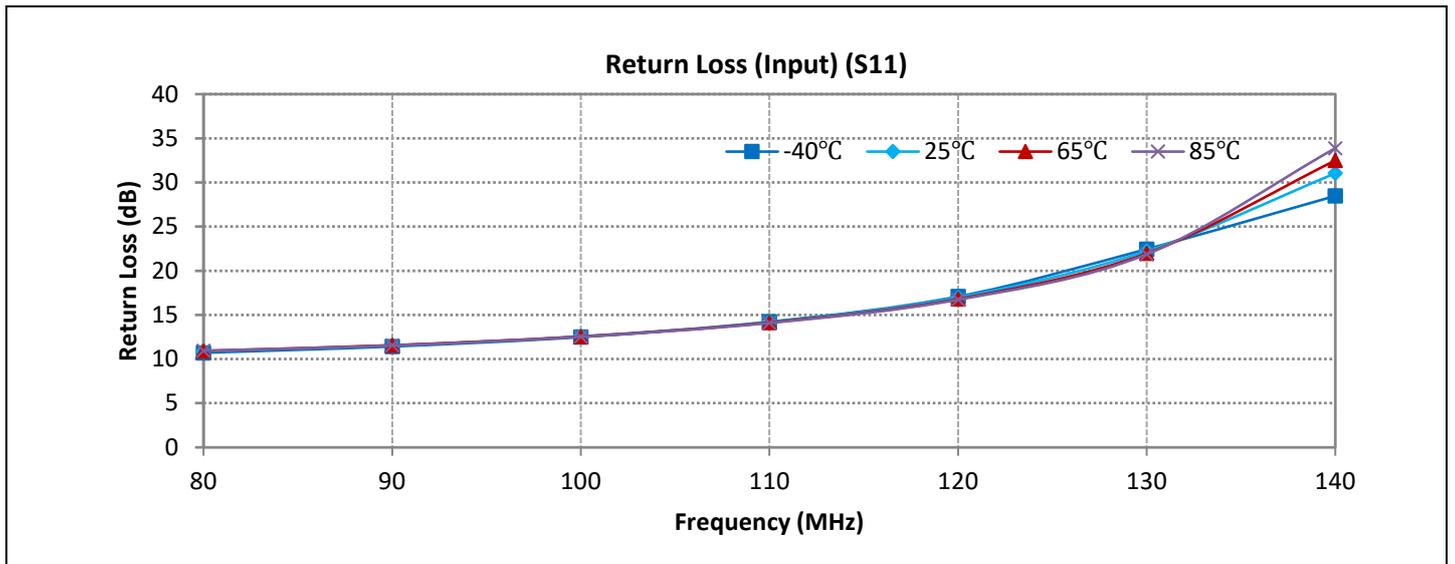
SUM PORT	5
PORT 1	1
PORT 1	3
GND	2、4、6
1-3	resistor external 100 ohms

Unit:mm  
Tolerance:±0.10mm

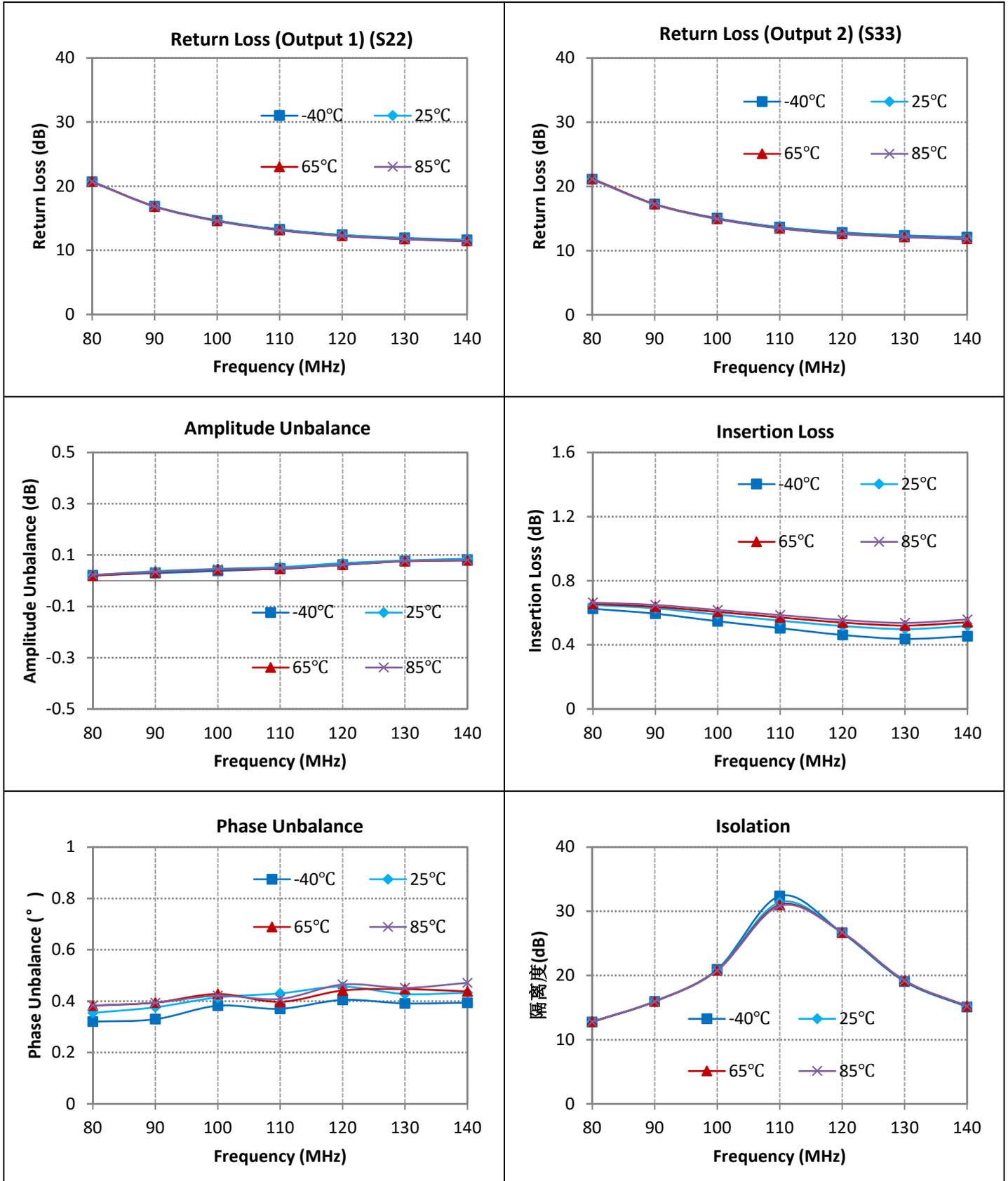
### Typical Performance Data T=25°C

Frequency (MHz)	Transmission Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Return Loss (dB) (Input) (S11)	Return Loss (dB) (Output 1) (S22)	Return Loss (dB) (Output 2) (S33)	Phase (deg)		Phase Unbalance (dB)	Insertion Loss (dB)
	Port1	Port2						Port1	Port2		
80.00	3.67	3.65	0.02	12.79	10.86	20.64	21.15	56.59	56.24	0.35	0.65
90.00	3.66	3.62	0.04	15.97	11.54	16.86	17.24	63.97	63.60	0.38	0.63
100.00	3.62	3.58	0.05	20.87	12.57	14.66	14.99	71.60	71.19	0.41	0.59
110.00	3.59	3.53	0.05	31.38	14.19	13.25	13.57	79.57	79.14	0.43	0.55
120.00	3.56	3.49	0.07	26.67	16.96	12.37	12.71	87.97	87.51	0.46	0.52
130.00	3.55	3.47	0.08	19.16	22.22	11.86	12.22	96.89	96.47	0.43	0.50
140.00	3.57	3.49	0.09	15.19	31.03	11.53	11.94	106.45	106.01	0.43	0.52

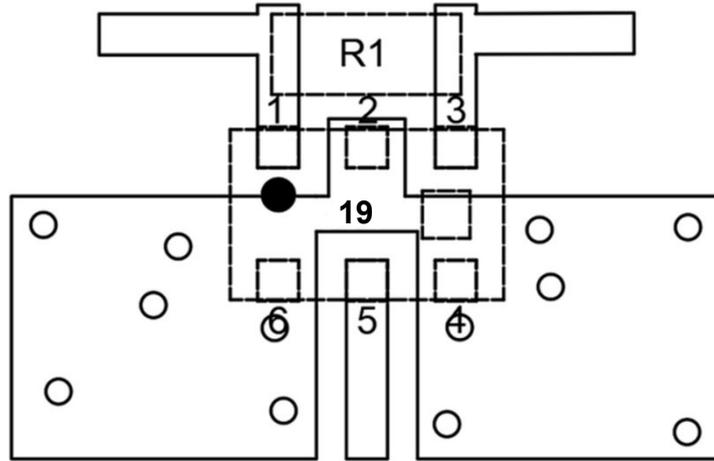
### Typical Electrical Characteristics (T=-40°C,25°C,65°C,85°C)



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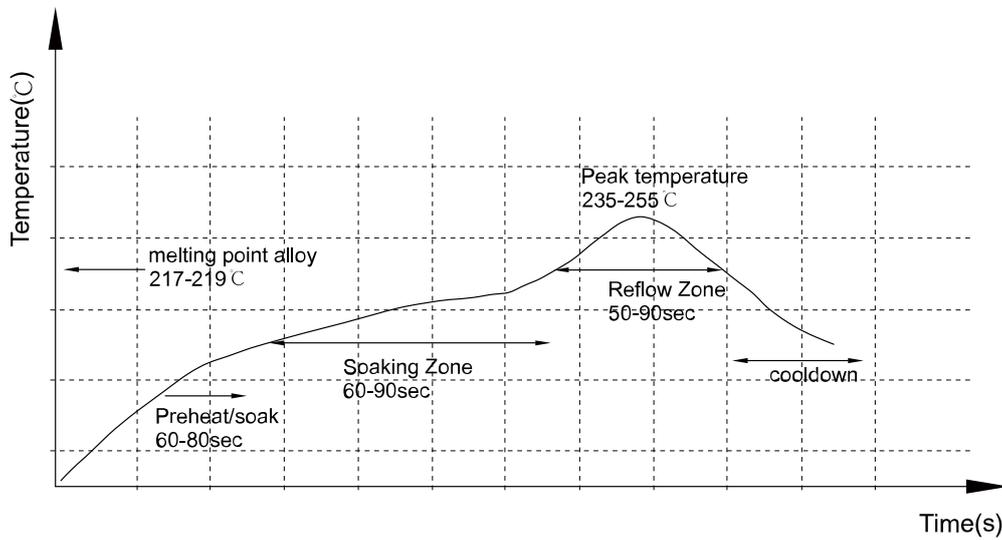


### Mounting Considerations

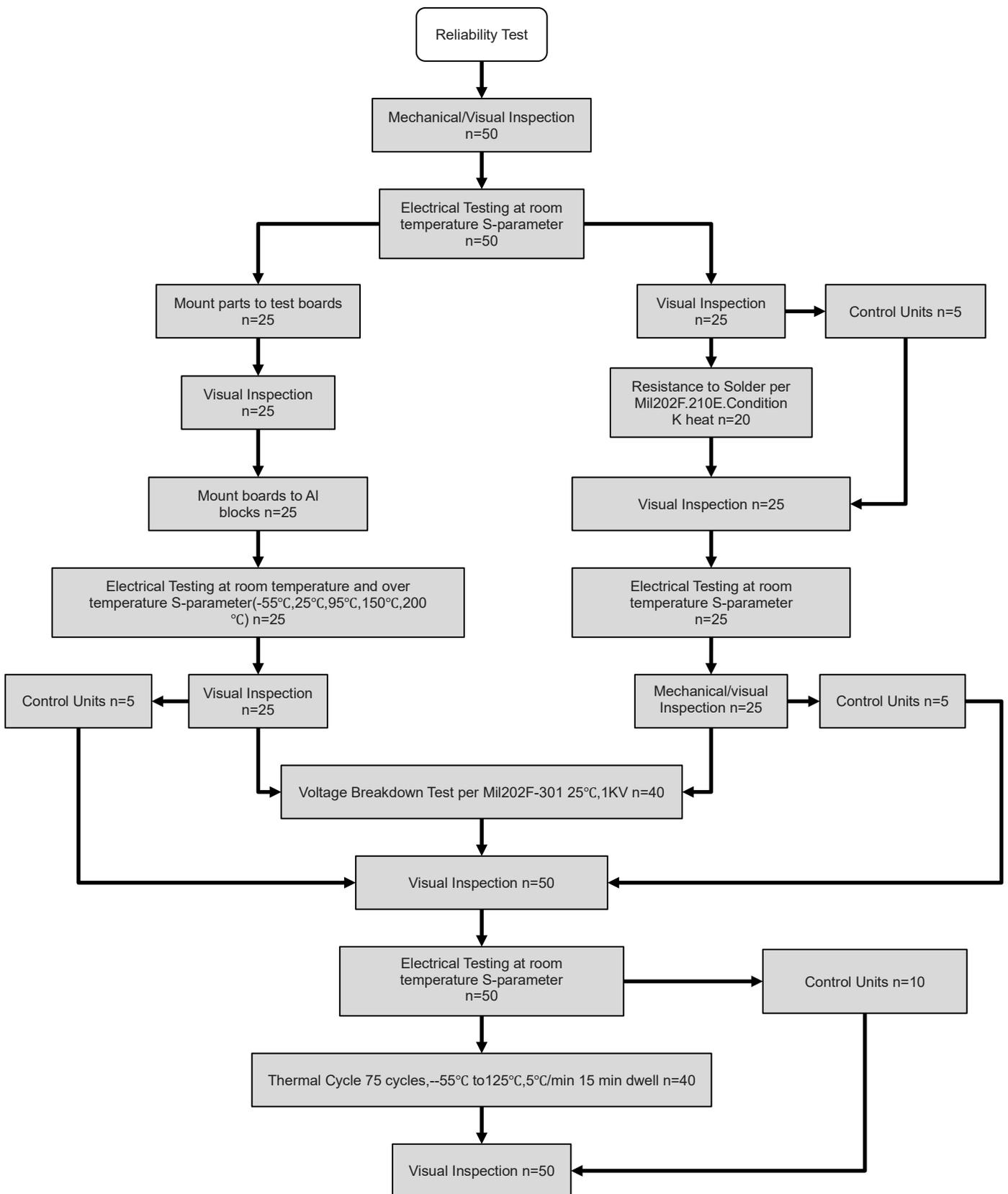


R1:100Ω,0402 Size

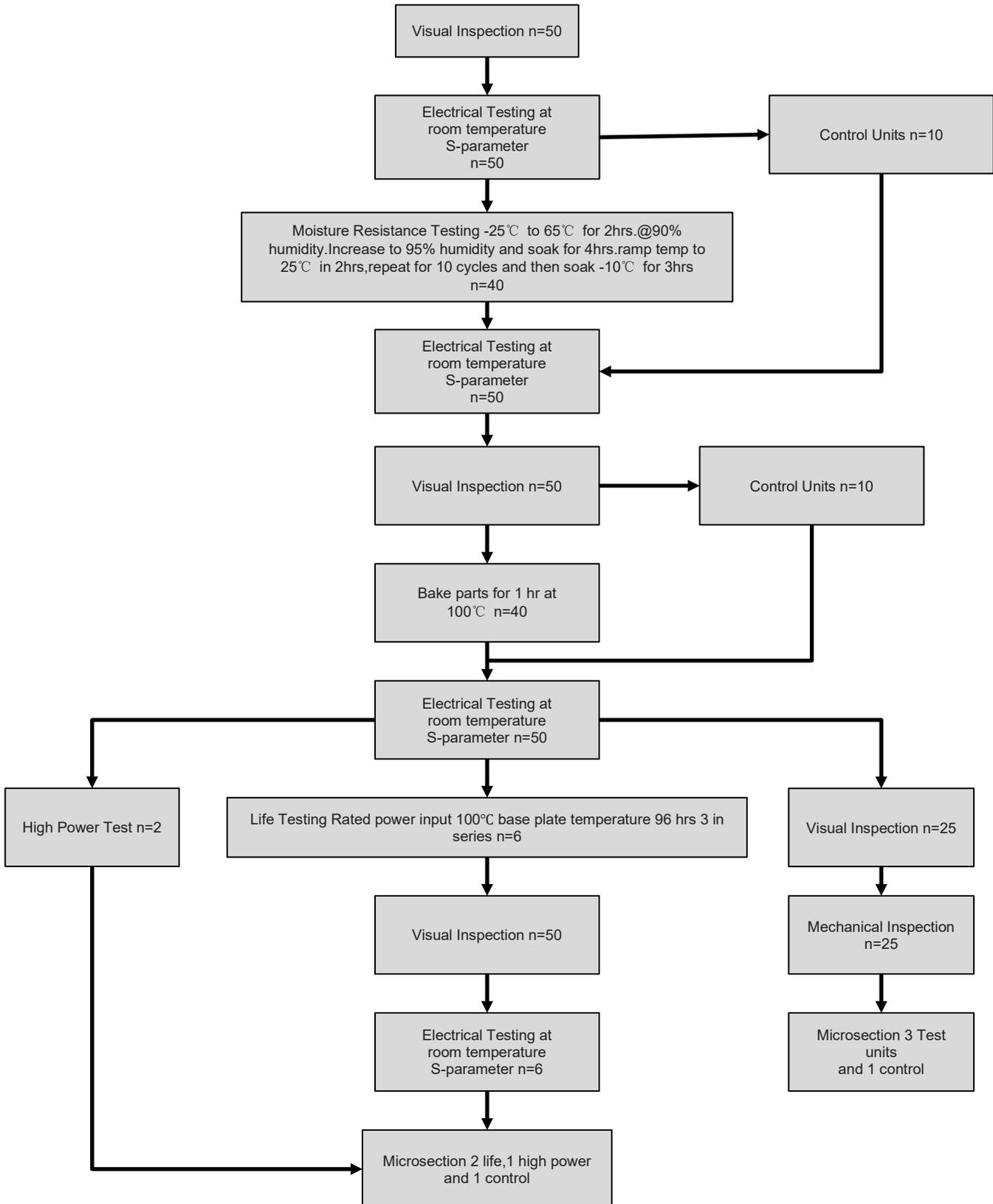
### Reflow Profile

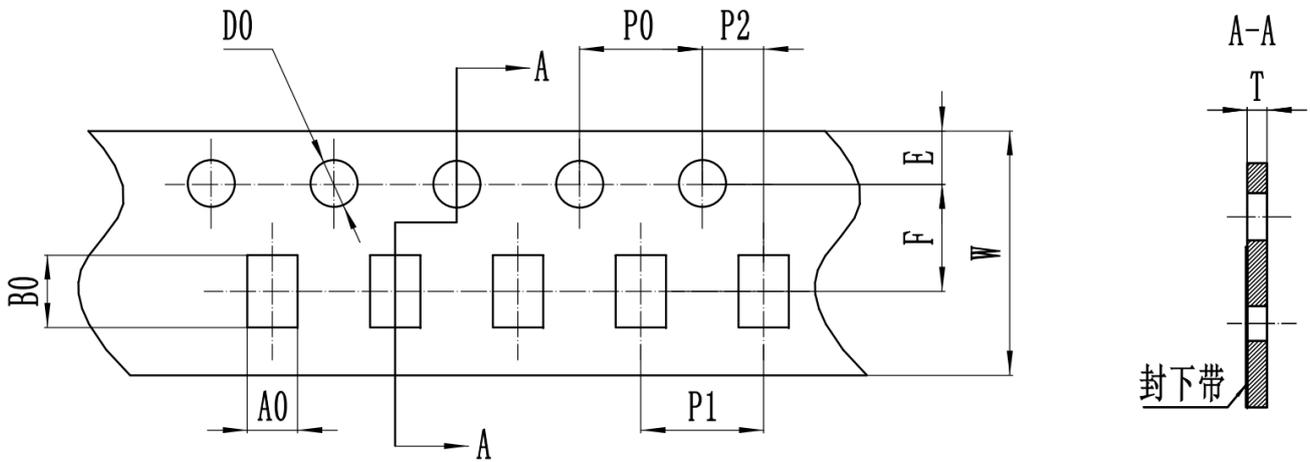


### Reliability Test Flow

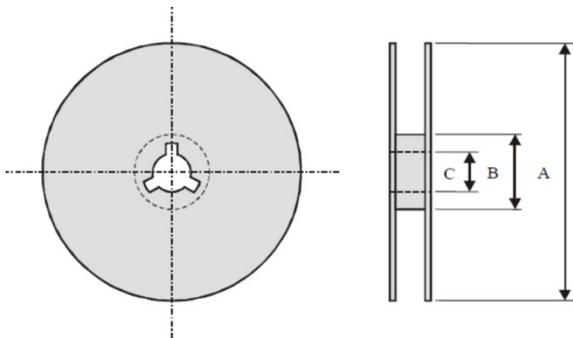


### Reliability Test Flow



**Plastic Tape specifications (unit: mm)**


Index	A0	B0	ØD	T	W	E	F	P0	P1	P2
Dimension (mm)	1.50 ± 0.05	2.25 ± 0.05	1.55 ± 0.05	1.07 ± 0.05	8.0 ± 0.1	1.75 ± 0.1	3.50 ± 0.05	4.0 ± 0.1	4.0 ± 0.1	2.00 ± 0.05



Index	A	B	C
Dimension (mm)	Ø177.8	Ø56.8	Ø11.1

**Taping Quantity: 4000 pieces per 7" reel**