

MAXIMUM RATING:

- Input Power Level: 10 dBm
- DC Voltage : 3 V
- Operating Temperature: -40°C to +105°C
- Storage Temperature: -40°C to +125°C
- ESD Machine Mode : 50V
- ESD Human Body Mode : 100V
- Moisture Sensitive Level (MSL): Level 1
- AEC-Q200 Qualified

**2332.5 MHz
SAW Filter**



SM1109-5

ELECTRICAL CHARACTERISTICS:

Temperature range for specification : $T_{spec} = -40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$

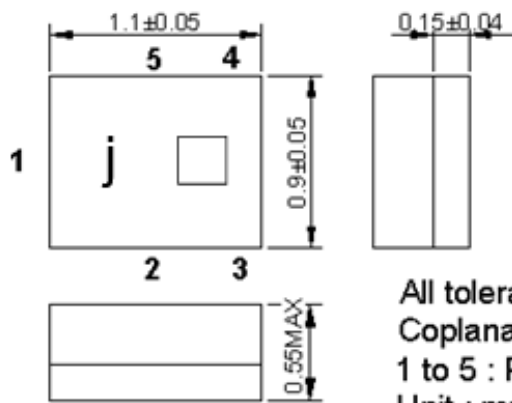
Terminating source impedance : $Z_s = 50\ \Omega$

Terminating load impedance : $Z_L = 50\ \Omega$

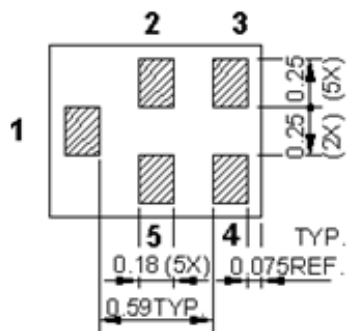
Item	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	2332.5	-
Min. Insertion Loss (2320~2345 MHz) α	dB	-	3.1	-
Max. Insertion Loss (2320~2345 MHz) IL	dB	-	4.6	7
Amplitude Ripple (2320~2324.5 MHz)	dB _{p-p}	-	1.3	2.3
Amplitude Ripple (2324.5~2328.2 MHz)	dB _{p-p}	-	0.6	1.2
Amplitude Ripple (2328.2~2332.5 MHz)	dB _{p-p}	-	0.2	1.2
Amplitude Ripple (2332.5~2334.38 MHz)	dB _{p-p}	-	0.4	1.2
Amplitude Ripple (2334.38~2336.25 MHz)	dB _{p-p}	-	0.2	1.2
Amplitude Ripple (2336.25~2337.75 MHz)	dB _{p-p}	-	0.2	1.2
Amplitude Ripple (2337.75~2341.25 MHz)	dB _{p-p}	-	0.3	1.2
Amplitude Ripple (2341.25~2343.125 MHz)	dB _{p-p}	-	0.2	1.2
Amplitude Ripple (2343.125~2345 MHz)	dB _{p-p}	-	0.5	2.1
VSWR (2320~2345 MHz)		-	1.8	2.1
Attenuation (refer to min. insertion loss α)				
100 ~ 800 MHz	dB	35	65	-
800 ~ 2100 MHz	dB	31	42	-
2100 ~ 2275 MHz	dB	32	37	-

2275 ~ 2288 MHz	dB	30	32	-
2288 ~ 2300 MHz	dB	25	32	-
2300 ~ 2310 MHz	dB	15	23	-
2310 ~ 2315 MHz	dB	3.5	7.5	-
2350 ~ 2355 MHz	dB	3.5	5.5	-
2355 ~ 2365 MHz	dB	13	17	-
2365 ~ 2377 MHz	dB	39	42	-
2377 ~ 2390 MHz	dB	35	39	-
2390 ~ 3000 MHz	dB	28	30	-
Temperature Coefficient	ppm/°C	-	-6.5	-

OUTLINE DRAWING:



All tolerances are ± 0.05 mm unless otherwise specified
 Coplanarity : 0.1 mm max.
 1 to 5 : Pin No.
 Unit : mm

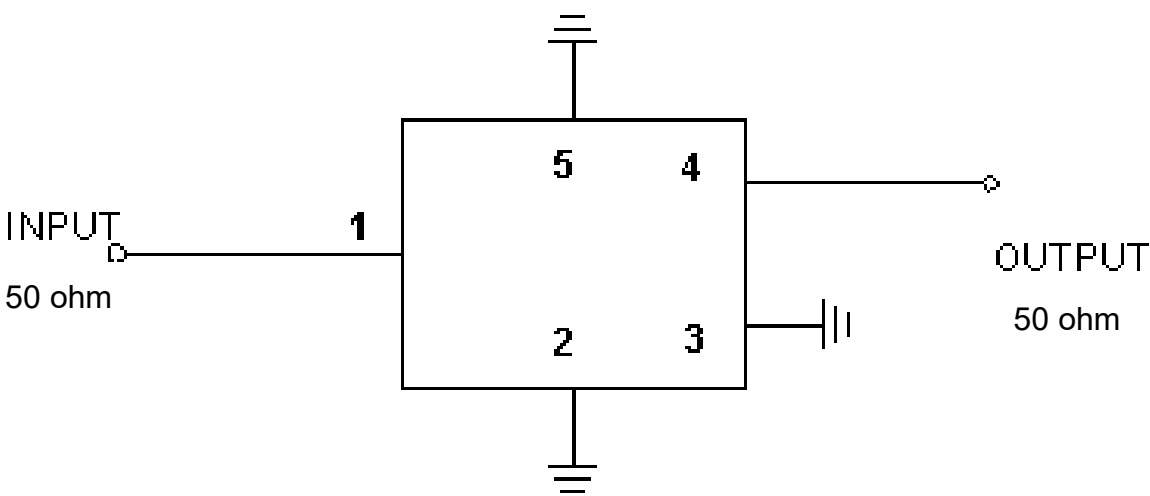


1 : Input
 4 : Output
 2, 3, 5 : Ground

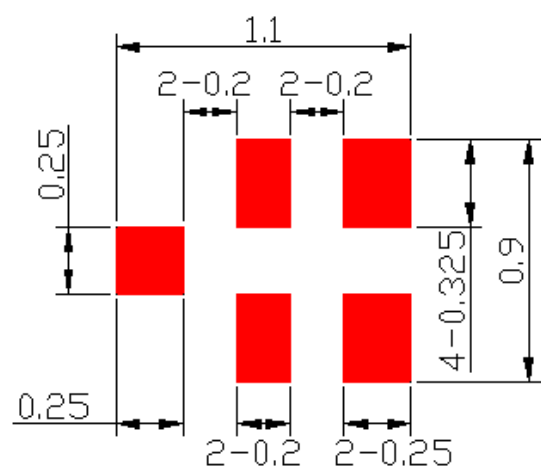
□ : Year/Month Code (Follow the table)

YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m
2024	n	p	q	r	s	t	u	v	w	x	y	z
2025	A	B	C	D	E	F	G	H	J	K	L	M
2026	N	P	Q	R	S	T	U	V	W	X	Y	Z
2027	a	b	c	d	e	f	g	h	j	k	l	m
2028	n	p	q	r	s	t	u	v	w	x	y	z

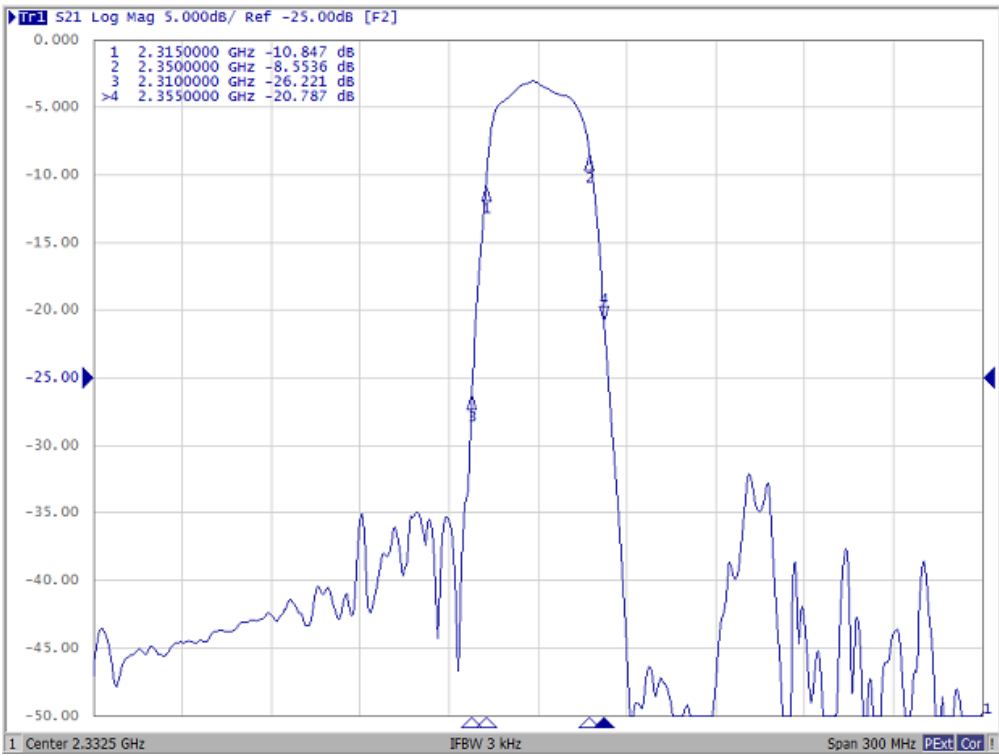
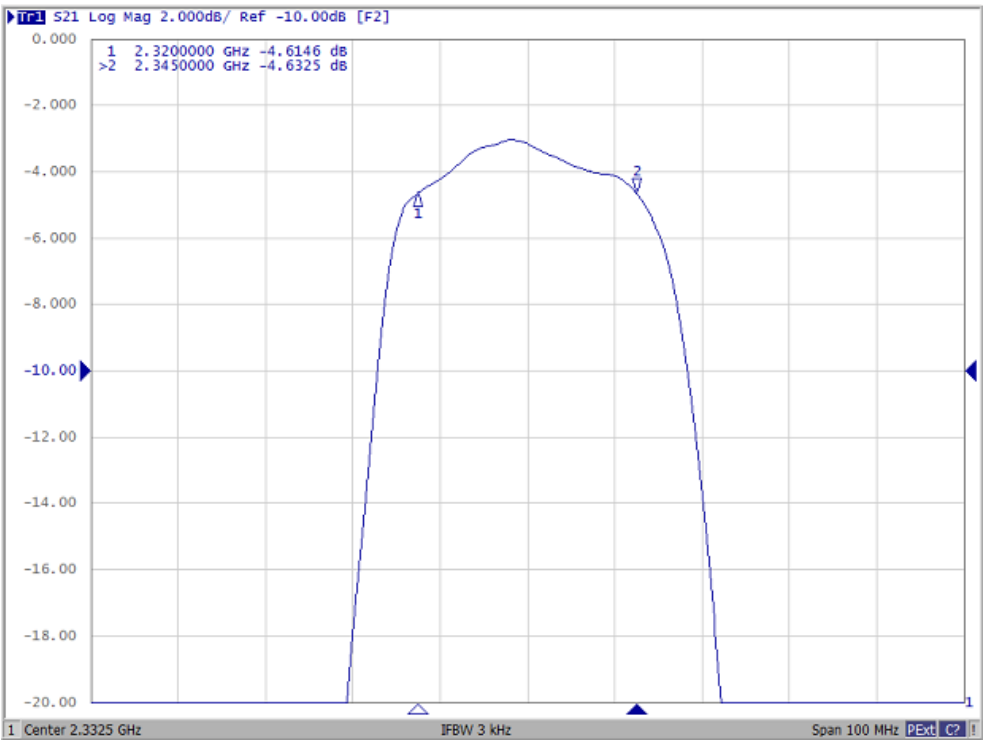
MEASUREMENT CIRCUIT:

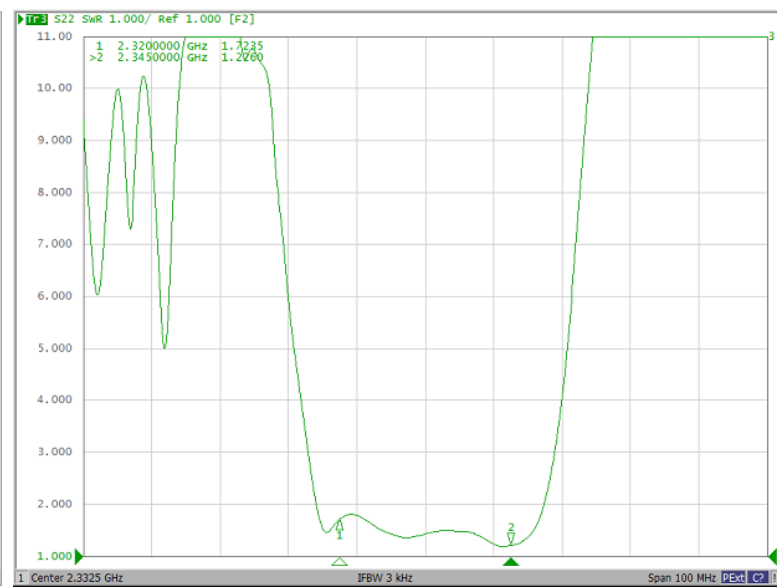
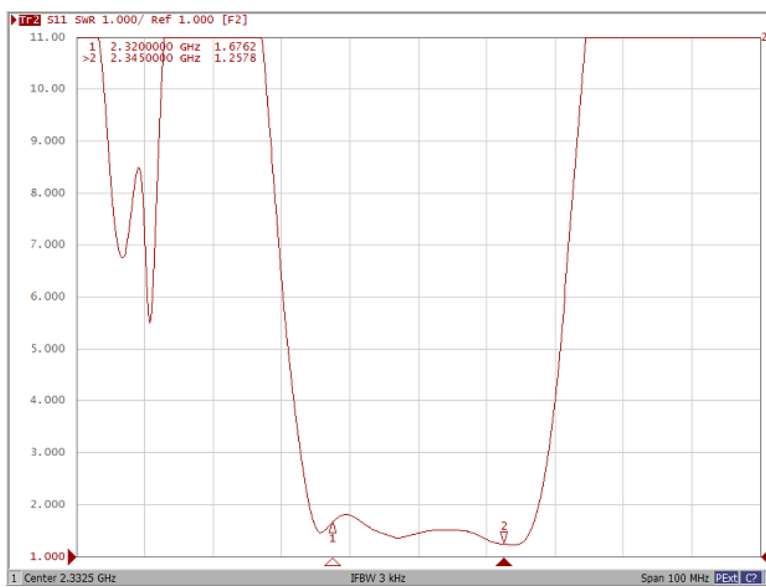
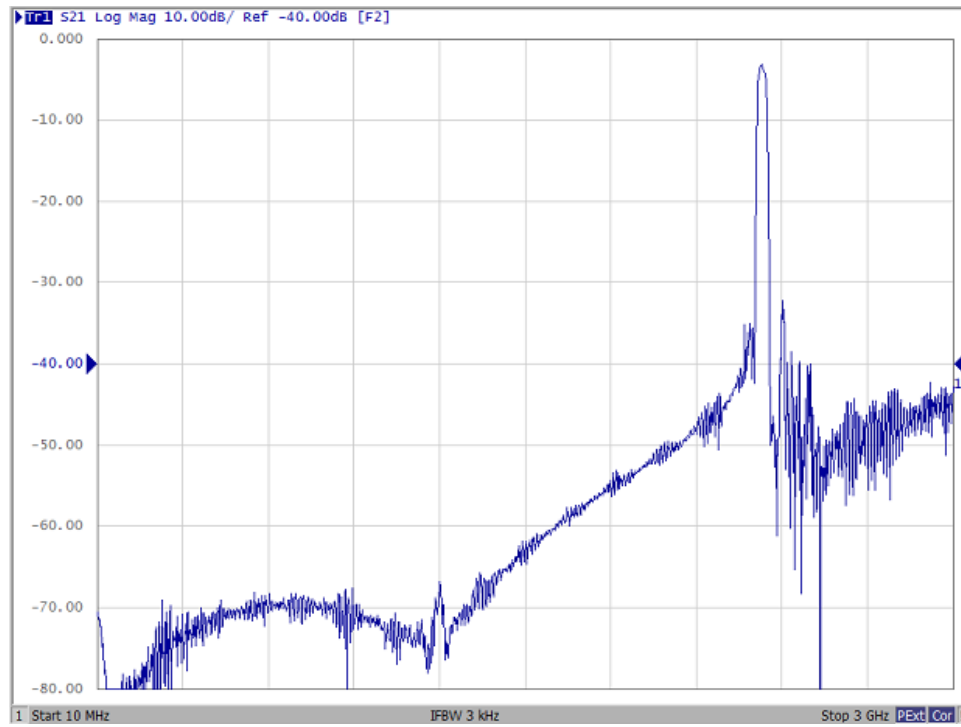


PCB Footprint :



Frequency Characteristics:





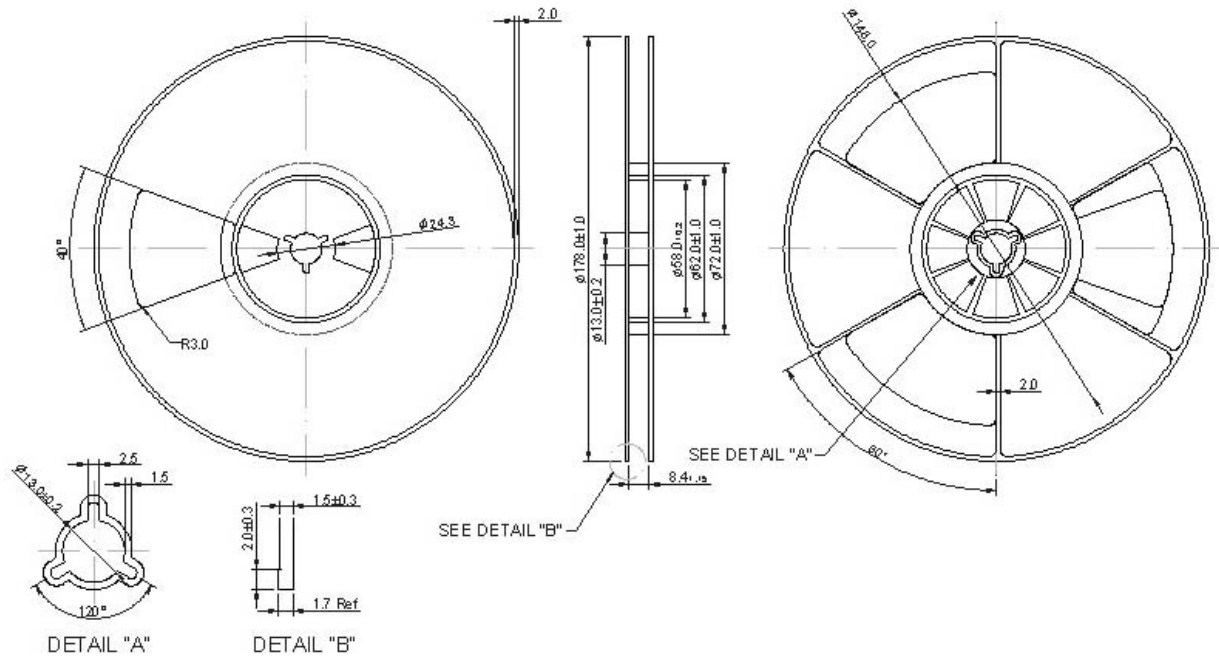
PACKING:

1. REEL DIMENSION

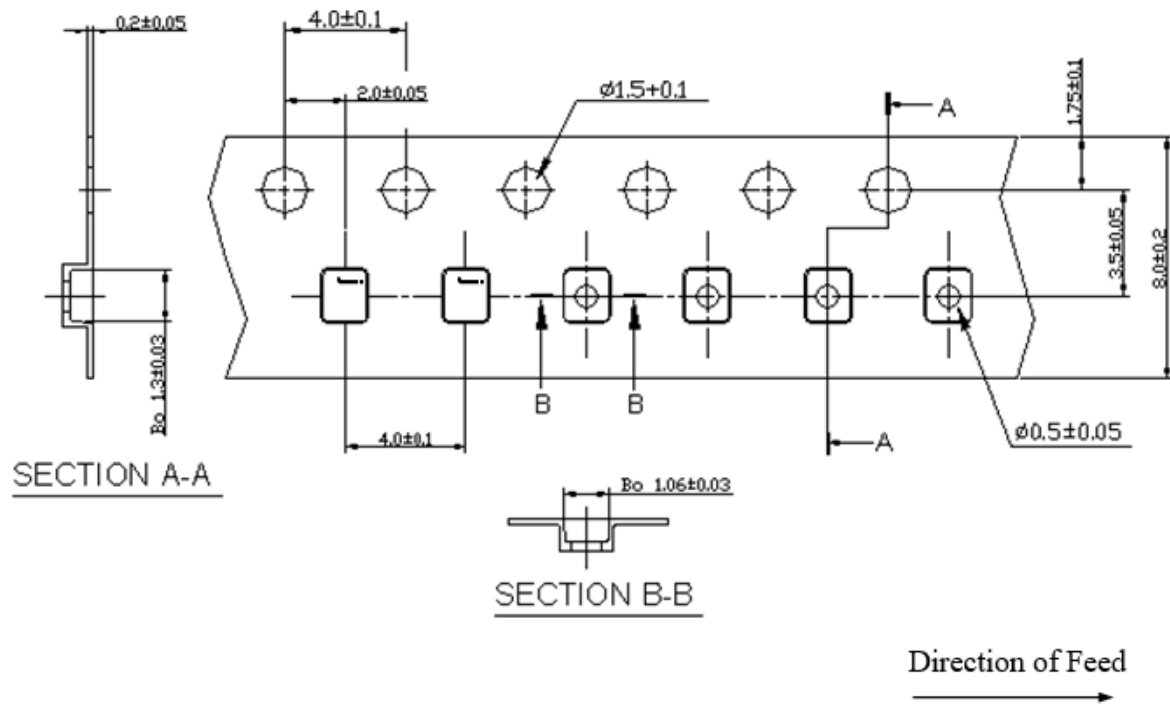
Reel Count:

7" = 5000

13" = 10,000

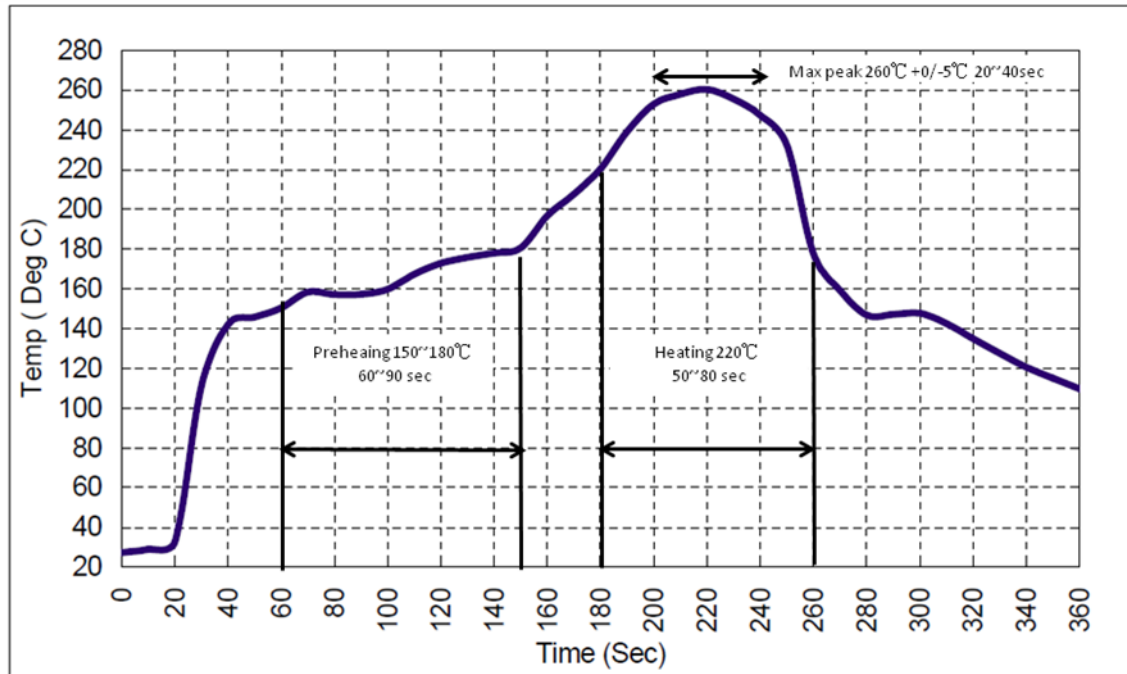


2. TAPE DIMENSION



RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min. 10sec).
4. Time : 2 times.



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.