
SM1411-5
MAXIMUM RATING:

- Maximum Input Power: 28 dBm (In passband, CW, 50 °C, 10kh)
- DC Voltage: +/-5 V
- Operating Temperature: -30 °C to +85 °C
- Storage Temperature: -40 °C to +100 °C
- Moisture Sensitivity Level: Level 1 (MSL 1)
- ESD: 50 V(MM), 100 V(HBM)

ELECTRICAL CHARACTERISTICS:

 Terminating source impedance: $Z_s = 50//15nH(Q=\infty) \Omega$ (Single-ended)

 Terminating load impedance: $Z_L = 50//15nH(Q=\infty) \Omega$ (Single-ended)

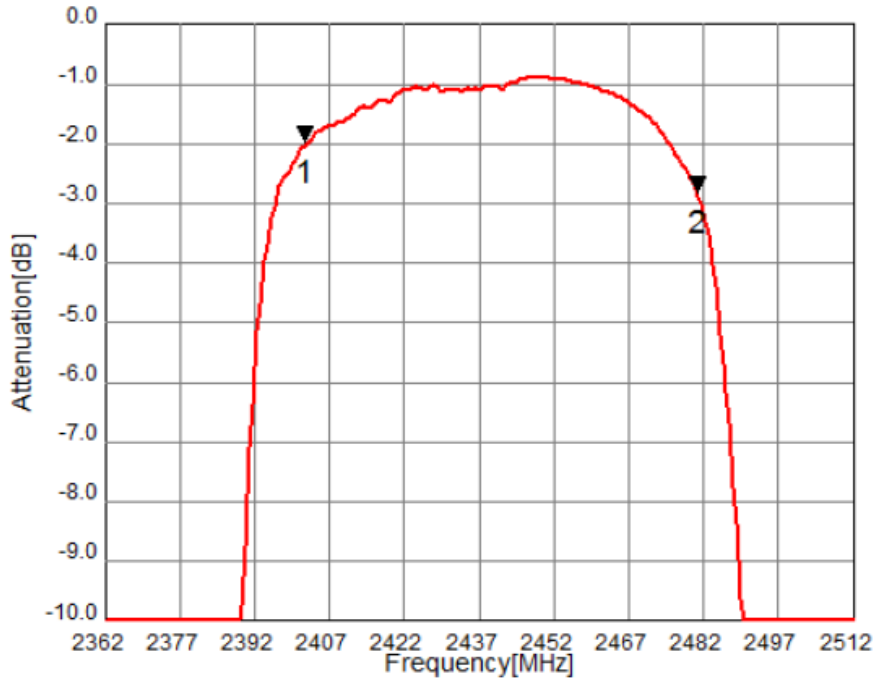
Parameters Description		Unit	Min.	Typ.	Max.	Remark
Center Frequency		Fc	MHz	-	2442	-
Insertion Loss	2402.5 ~ 2421.5 MHz	dB	-	1.9	2.3	(*1)(*2)
	2407.5 ~ 2426.5 MHz	dB	-	1.6	2.2	(*1)(*2)
	2412.5 ~ 2471.5 MHz	dB	-	1.6	2.2	(*1)(*2)
	2457.5 ~ 2476.5 MHz	dB	-	1.8	2.2	(*1)(*2)
	2462.5 ~ 2481.5 MHz	dB	-	2.5	3.0	(*1)(*2)
Amplitude Ripple	2402.5 ~ 2421.5 MHz	dB	-	0.3	1.9	(*2)
	2407.5 ~ 2426.5 MHz	dB	-	0.2	1.7	(*2)
	2412.5 ~ 2471.5 MHz	dB	-	0.5	1.7	(*2)
	2457.5 ~ 2476.5 MHz	dB	-	0.4	1.7	(*2)
	2462.5 ~ 2481.5 MHz	dB	-	0.8	2.5	(*2)
VSWR (Input)	2402.5 ~ 2481.5 MHz	-	-	1.8	2.2	+25°C
VSWR (Output)	2402.5 ~ 2481.5 MHz	-	-	1.8	2.2	+25°C
Attenuation (Reference level from 0 dB)						
800 ~ 2300 MHz		dB	37	40	-	-
2300 ~ 2365 MHz		dB	48	54	-	-
2365 ~ 2370 MHz		dB	48	56	-	(*3)
2500 ~ 2505 MHz		dB	40	56	-	-30~-10°C(*3)
		dB	47	56	-	-10~+25°C(*3)
		dB	52	56	-	+25~+85°C(*3)
2505 ~ 2690 MHz		dB	45	49	-	(*3)
2570 ~ 2620 MHz		dB	47	53	-	(*3)
2690 ~ 7500 MHz		dB	30	37	-	

(*1)Specification of insertion loss excludes loss that comes from the test board.

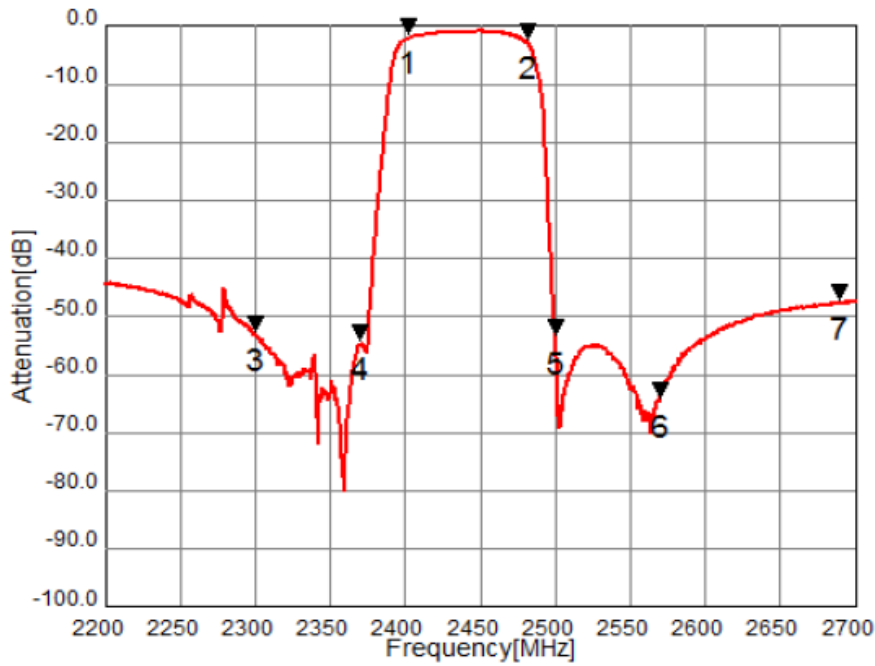
(*2)The integrated loss over any 19 MHz channel within the band.

(*3)The integrated loss over any 5 MHz channel within the band.

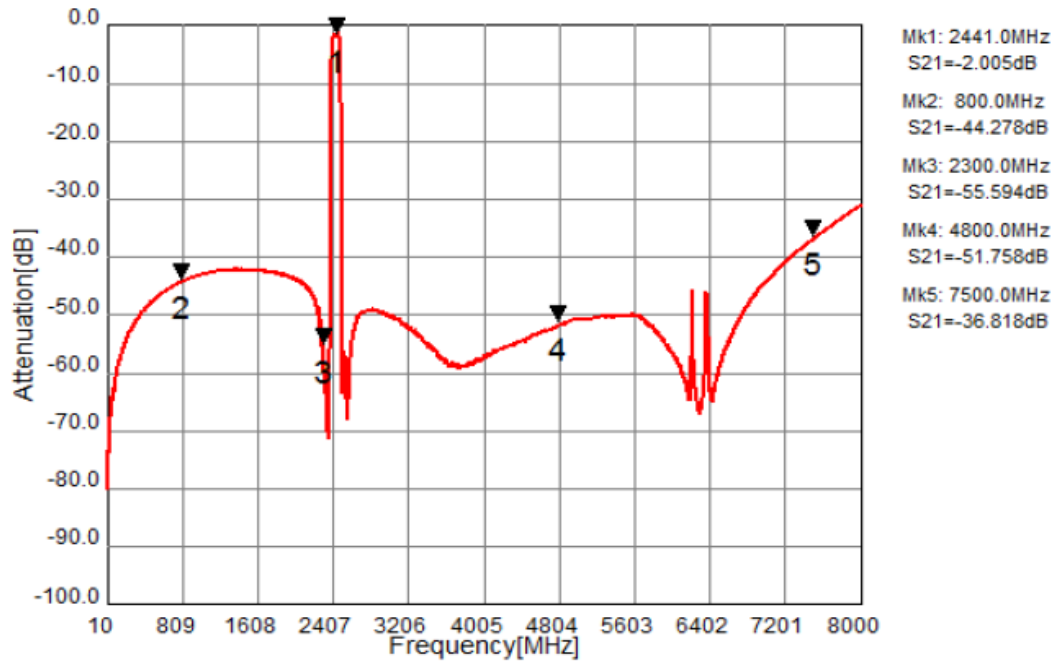
FREQUENCY CHARACTERISTICS:



Mk1: 2402.5MHz
S21=-2.036dB
Mk2: 2481.5MHz
S21=-2.867dB

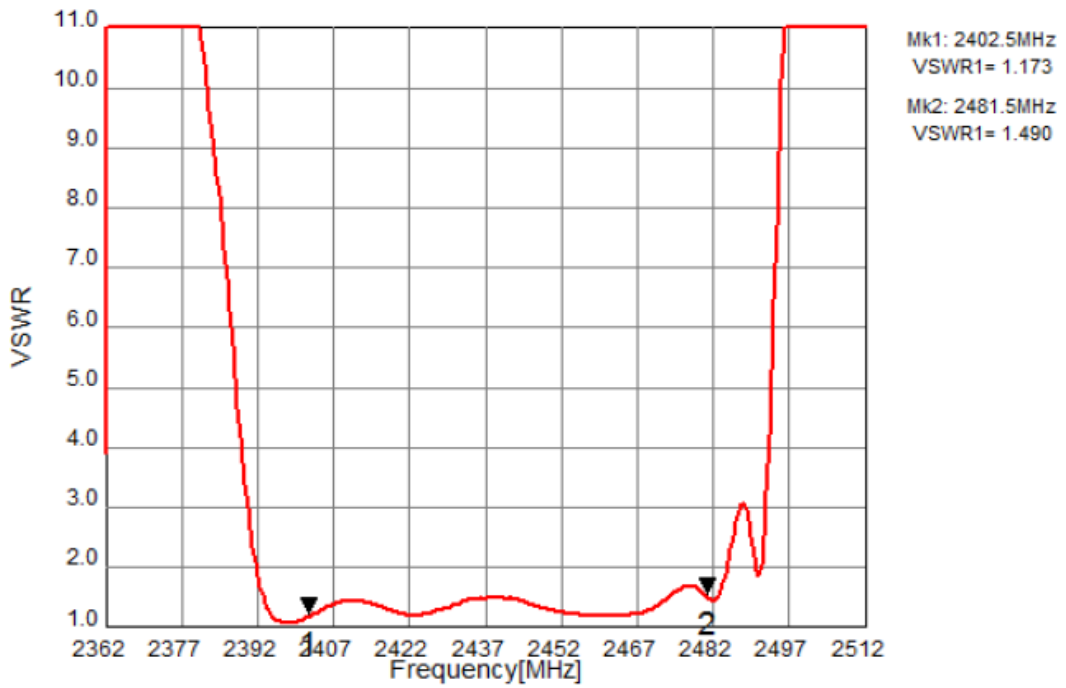


Mk1: 2402.5MHz
S21=-2.036dB
Mk2: 2481.5MHz
S21=-2.867dB
Mk3: 2300.0MHz
S21=-53.038dB
Mk4: 2370.0MHz
S21=-54.685dB
Mk5: 2500.0MHz
S21=-53.894dB
Mk6: 2570.0MHz
S21=-64.507dB
Mk7: 2690.0MHz
S21=-47.657dB

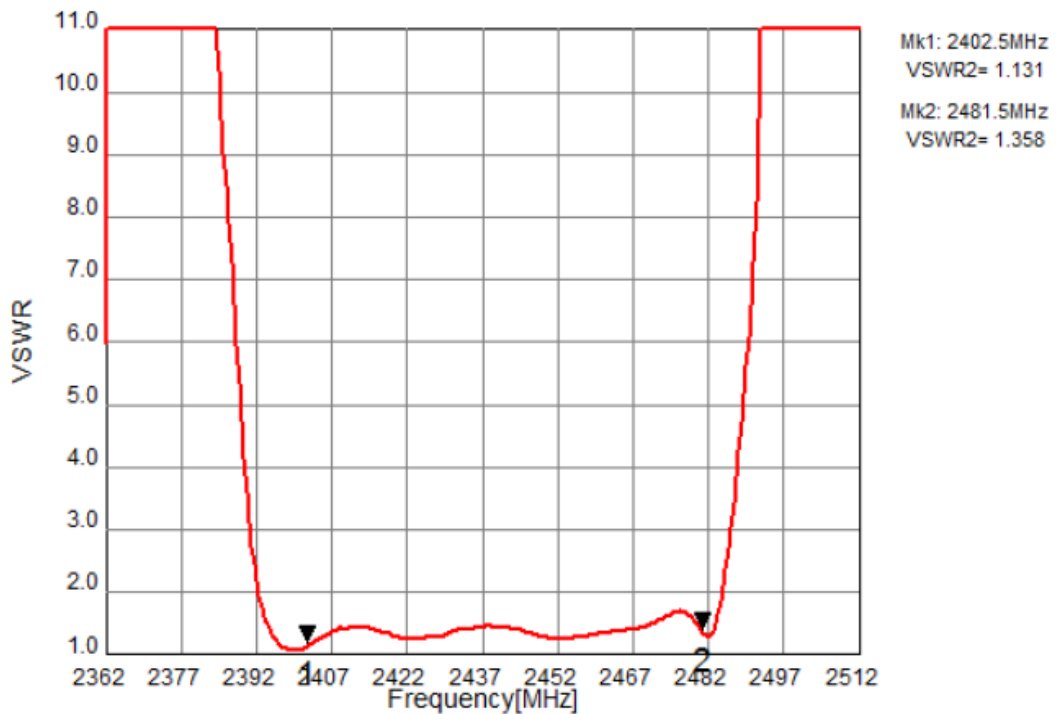


Reflection Functions:

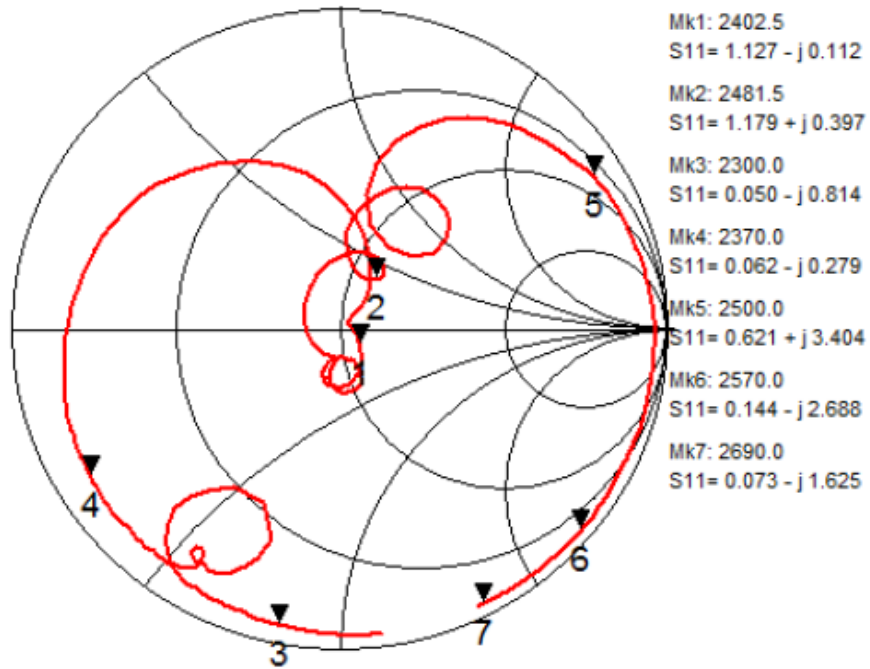
VSWR (Input)



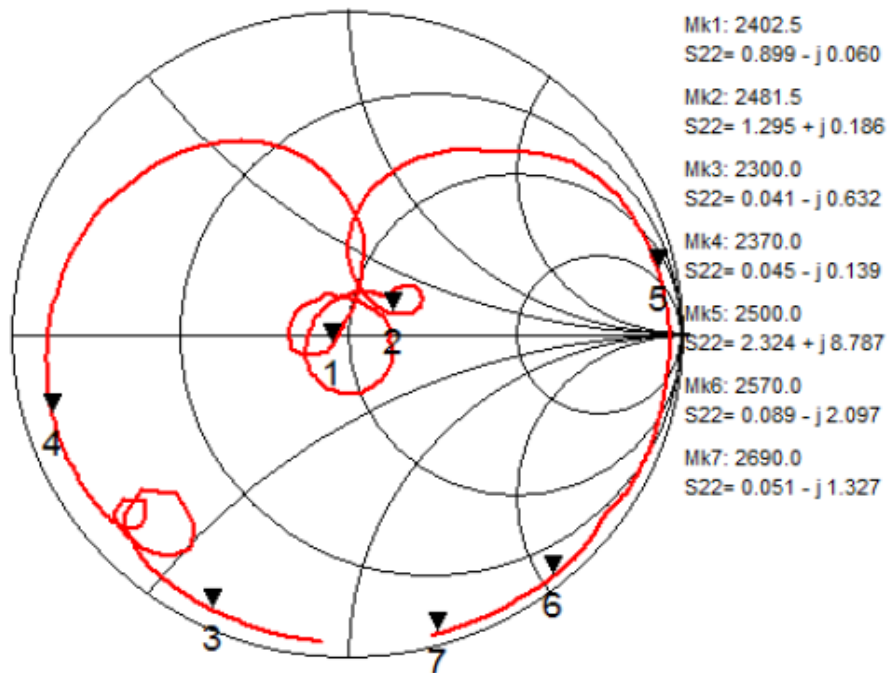
VSWR (Output)



Smith Chart (Input)



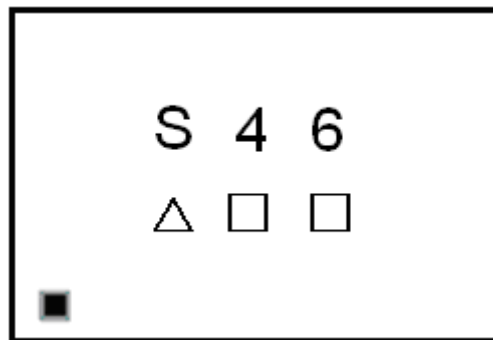
Smith Chart (Output)



Top View (Sample Production):



Top View (Mass Production):



△ : Date Code

□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

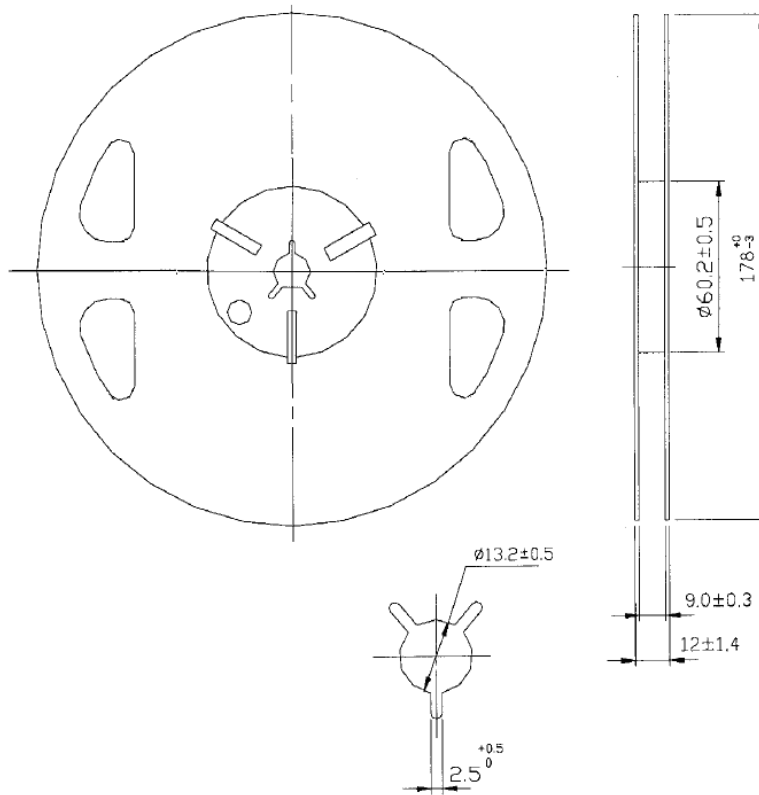
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	Đ	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

PACKING:

1. REEL DIMENSION

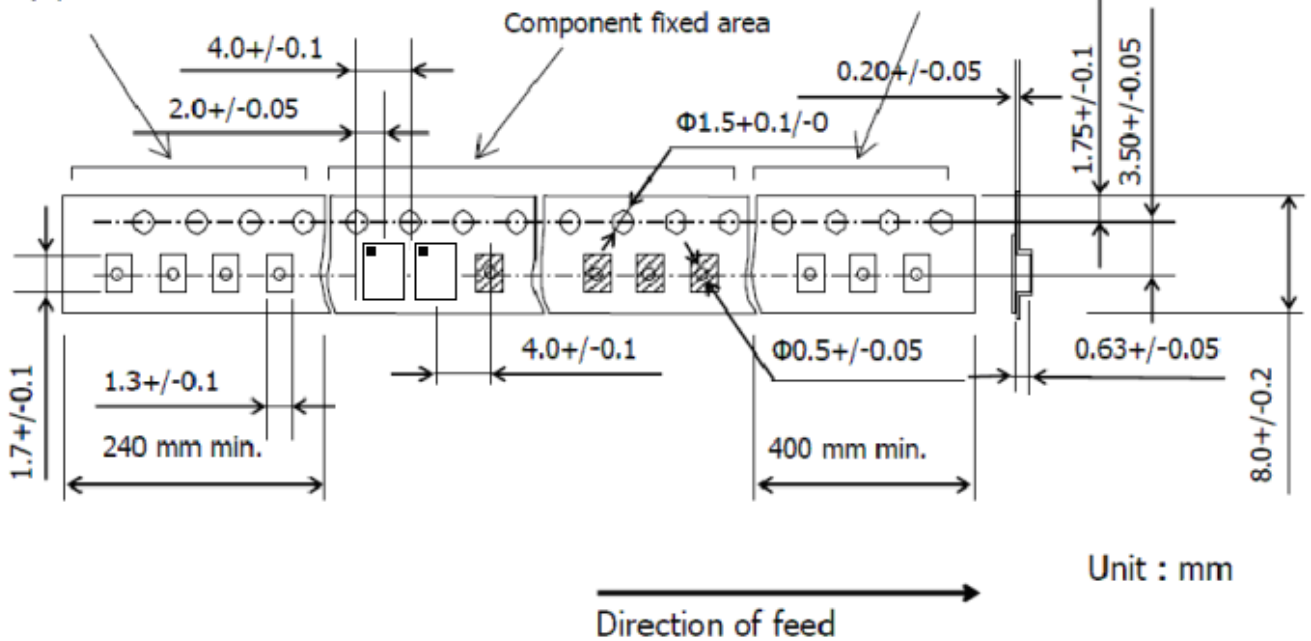
13" Reel Count: 3000



2. TAPE DIMENSION

Empty cavities

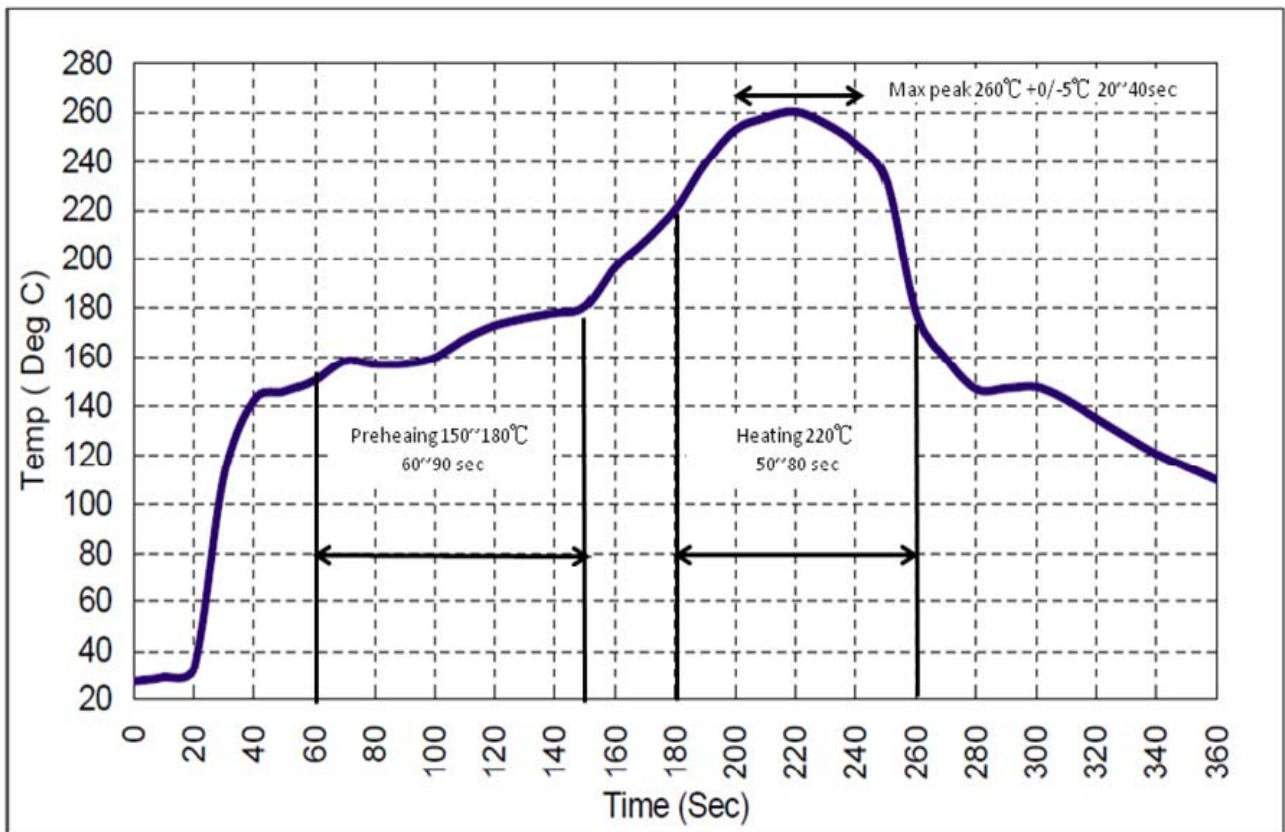
Empty cavities



Unit : mm

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 260°C +0/-5°C peak (20~40sec).
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.