

2332.5 MHz SMD TC-SAW Filter

AFII-TC-0014

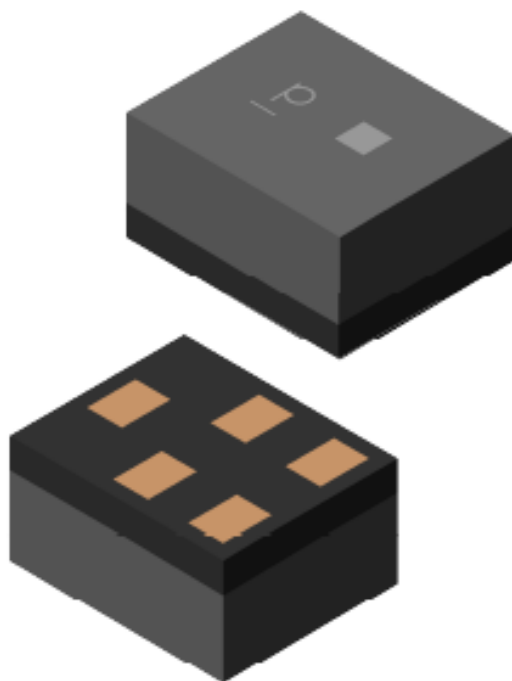
Features

- Temperature-compensated
- Bandpass TC-SAW Filter with 25 MHz bandwidth
- Surface Mount 1.1 x 0.9 x 0.55 mm package
- +105°C maximum operating temperature
- Excellent selectivity with high out-of-band rejection

Applications

- Internet of Things (IoT)
- 5G
- Artificial Intelligence (AI)
- Augmented reality
- Autonomous vehicles
- Smart Home devices

Product Image



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Electrical Specification

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (fc)	-	2332.5	-	MHz	
Min. Insertion Loss	-	3.1	-	dB	2320~2345 MHz
Max. Insertion Loss	-	4.6	7	dB	2320~2345 MHz
Amplitude Ripple	-	1.3	2.3	dB	2320~2324.5 MHz
Amplitude Ripple	-	0.6	1.2	dB	2324.5~2328.2 MHz
Amplitude Ripple	-	0.2	1.2	dB	2328.2~2332.5 MHz
Amplitude Ripple	-	0.4	1.2	dB	2332.5~2334.38 MHz
Amplitude Ripple	-	0.2	1.2	dB	2334.38 ~2336.25 MHz
Amplitude Ripple	-	0.2	1.2	dB	2336.25~2337.75 MHz
Amplitude Ripple	-	0.3	1.2	dB	2337.75~2341.25MHz
Amplitude Ripple	-	0.2	1.2	dB	2341.25~2343.125MHz
Amplitude Ripple	-	0.5	2.1	dB	2343.125~2345 MHz
Attenuation (Refer to min. insertion loss)	35	65	-	dB	100~800 MHz
	31	42	-	dB	800~2100 MHz
	32	37	-	dB	2100~2275 MHz
	30	32	-	dB	2275~2288 MHz
	25	32	-	dB	2288 ~ 2300 MHz
	15	23	-	dB	2300 ~ 2310 MHz
	3.5	7.5	-	dB	2310 ~ 2315 MHz
	3.5	5.5	-	dB	2350 ~ 2355 MHz
	13	17	-	dB	2355 ~ 2365 MHz
	39	42	-	dB	2365 ~ 2377 MHz
	35	39	-	dB	2377 ~ 2390 MHz
	28	30	-	dB	2390~3000 MHz
VSWR	-	1.8	2.1	-	2320~2345 MHz
DC Voltage	-	-	3	V	
Input Power	-	-	10	dBm	
Terminating Source Impedance	-	50	-	Ω	
Terminating Load Impedance	-	50	-	Ω	
Temperature Coefficient	-	-6.5	-	ppm/°C	

Notes: Temperature range for specification : -40°C ~ +105°C



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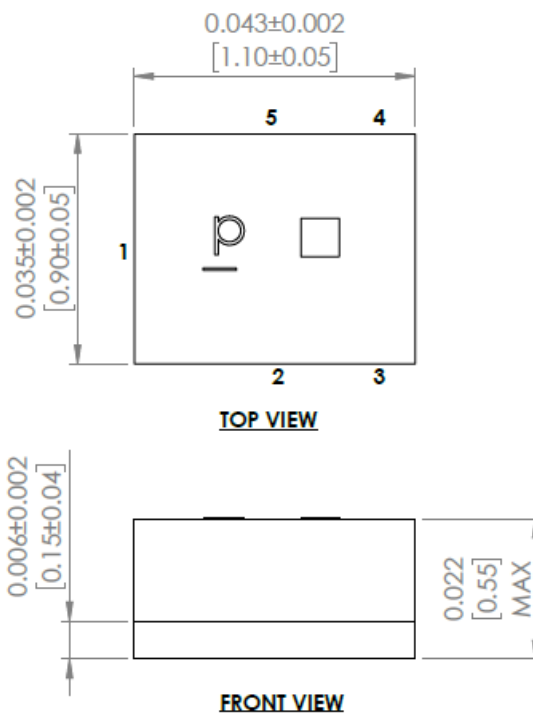
Mechanical Specification

Parameters	Specifications
Dimension	1.1 x 0.9 x 0.55 mm
Mounting Type	SMD Mount

Environmental Specification

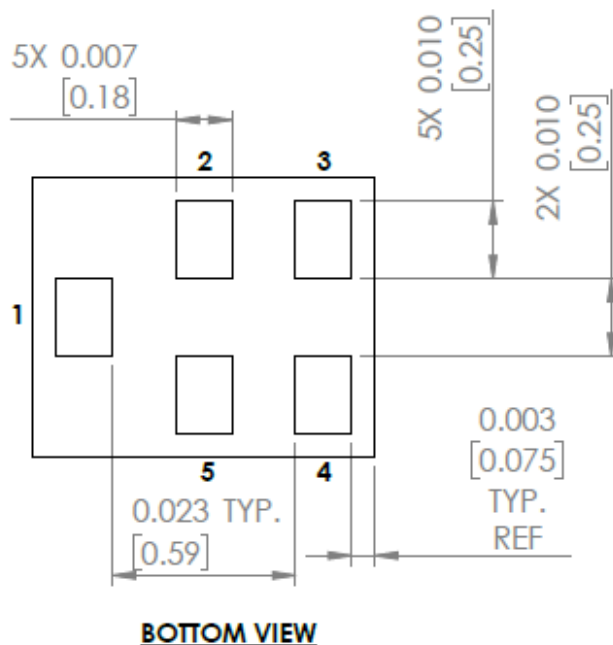
Parameters	Specifications
Operating Temperature Range	-40°C ~ +105°C
Storage Temperature Range	-45°C ~ +125°C
MSL level	2a
ESD Machine Mode	50V
ESD Human Body Mode	100V

Product Dimensions



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Dimensions: inches[mm]

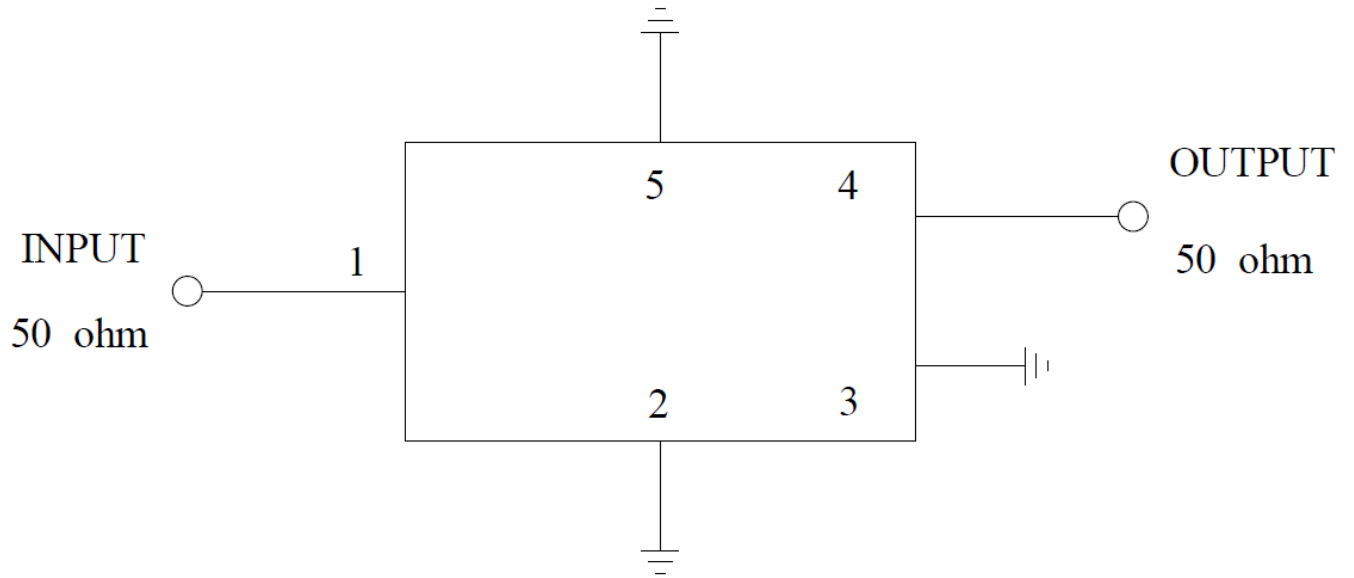
Pin No.	Symbol	Function
1	IN	Input
2	GND	Ground
3	GND	Ground
4	OUT	Output
5	GND	Ground

Note: All tolerances are +/-0.05mm unless otherwise specified.
Coplanarity: 0.1mm max

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Measurement Circuit



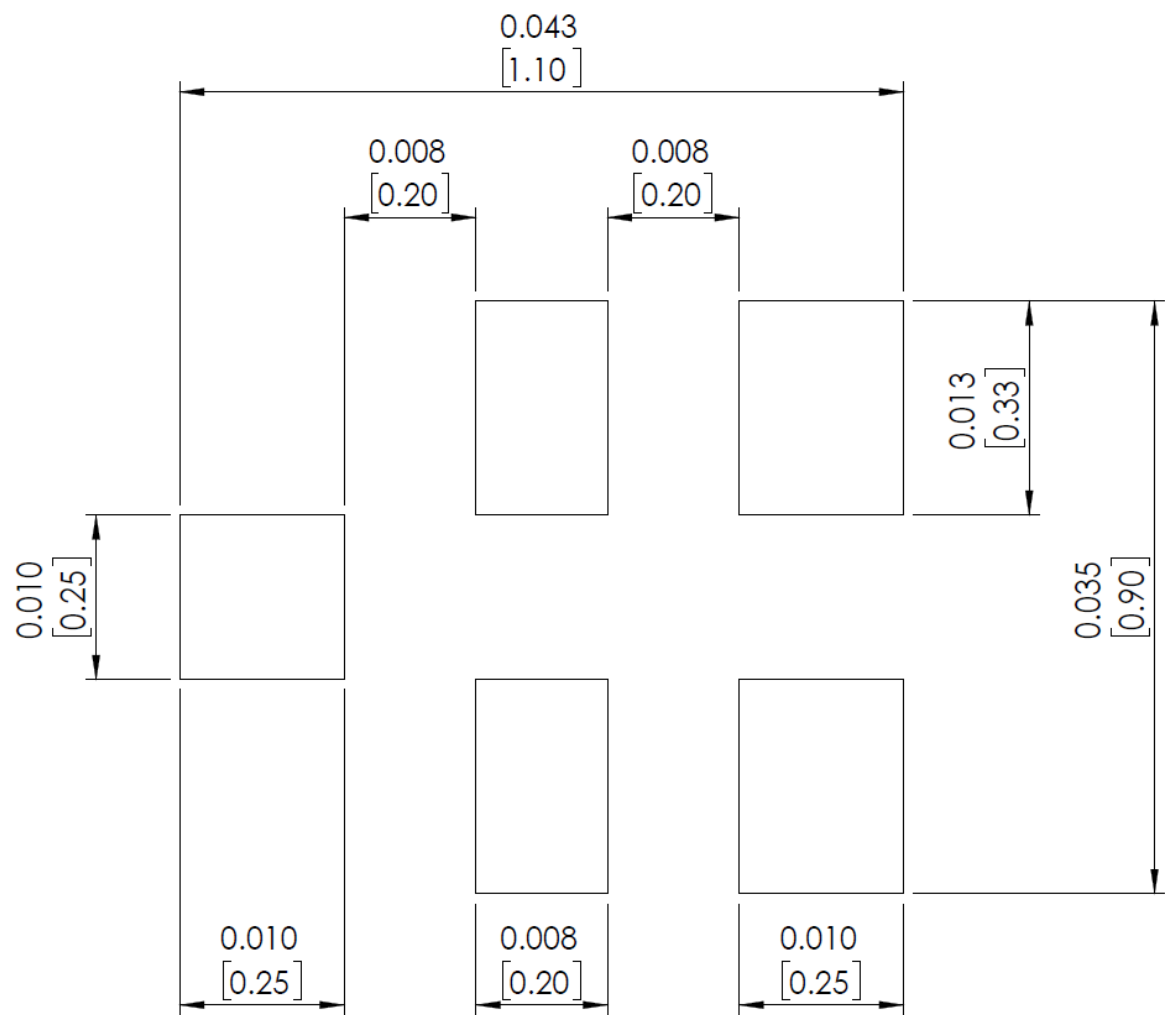
Source Impedance: 50 Ω

Load Impedance: 50 Ω

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PCB Footprint



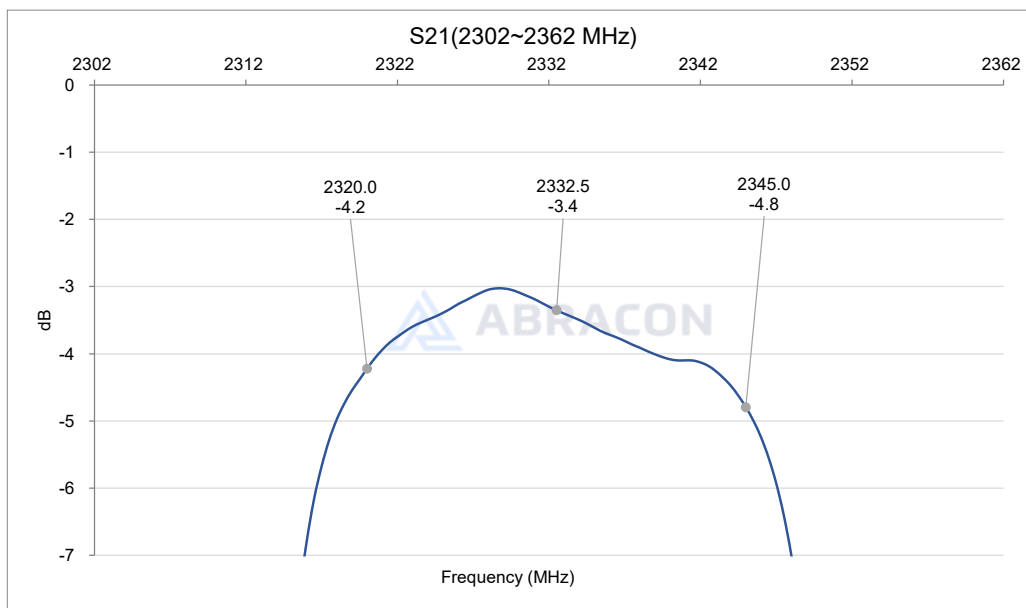
Dimensions: Inches[mm]

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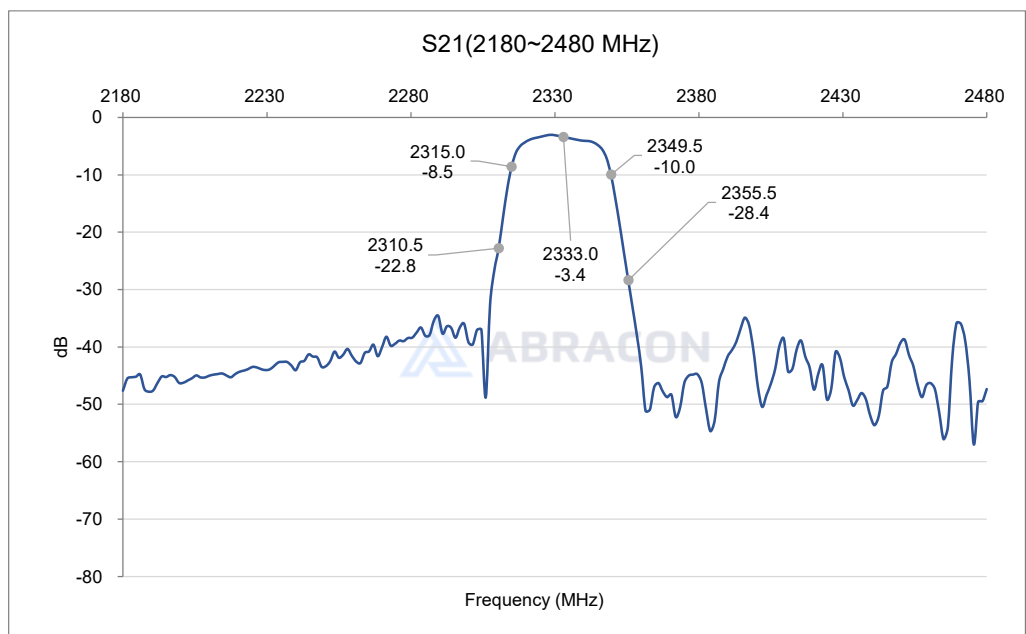
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Frequency Characteristics

S21 Narrow Band



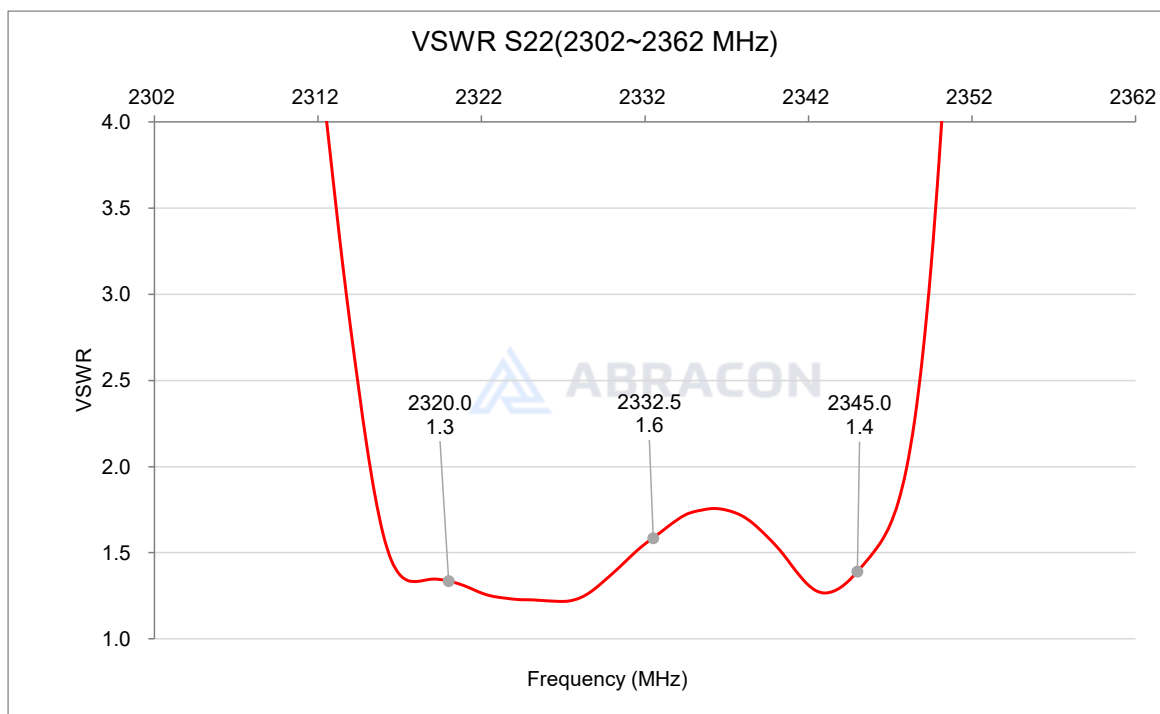
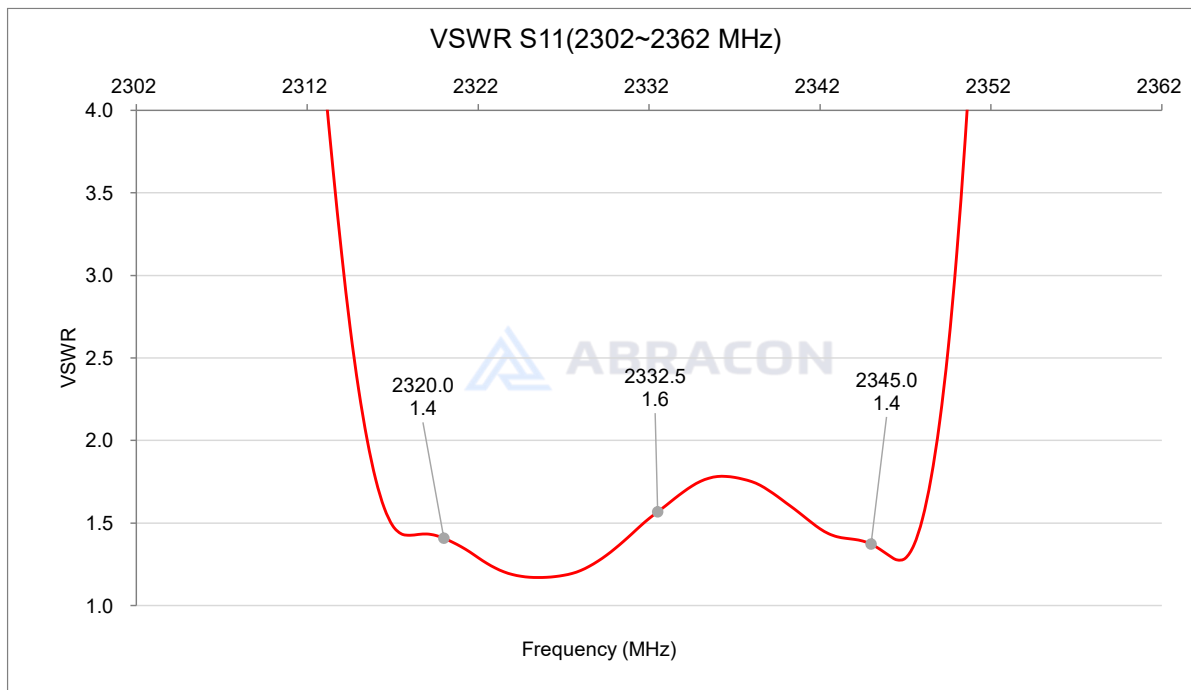
S21 Wide Band



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VSWR (S11 & S22)

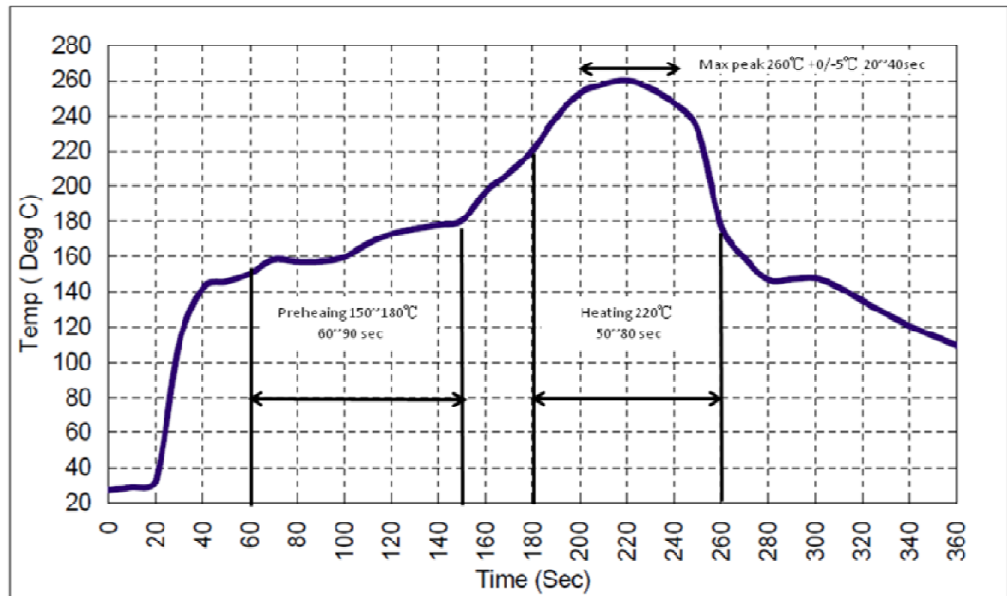


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Reflow Profile [JEDEC J-STD-020]

1. Preheating shall be fixed at 150°C ~ +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°C ~ 260°C peak (min. 10sec).
4. Time :2 times.



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