

SAW Filter 942.5 MHz
Part No: MP11470

Model: TA1839B
Rev No: 1

Electrostatic Sensitive Device (ESD)

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage: +/- 5 V
3. Operating temperature range: -40 °C to +85 °C
4. Storage temperature range: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD: 100 V(MM), 200 V(HBM)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 50 \Omega$ (Single-ended)

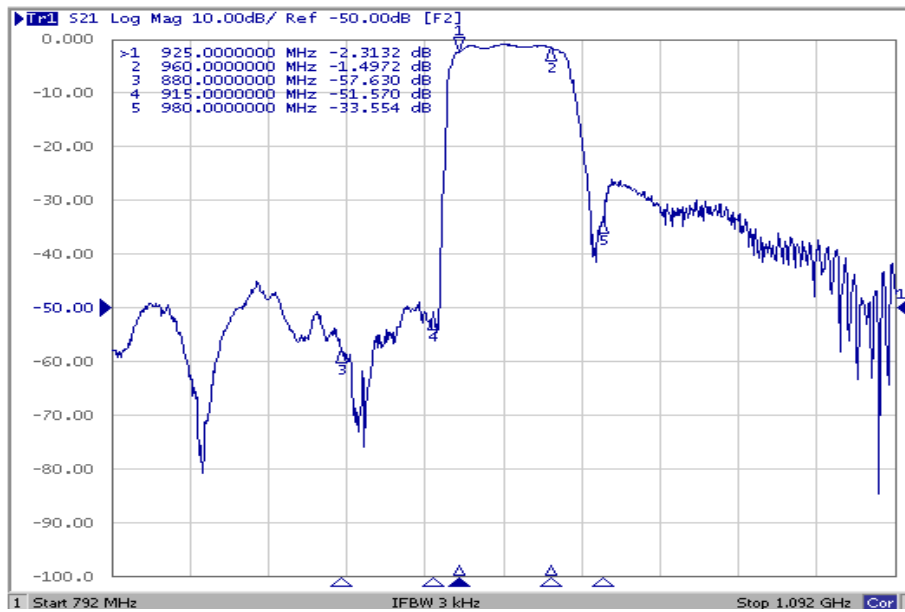
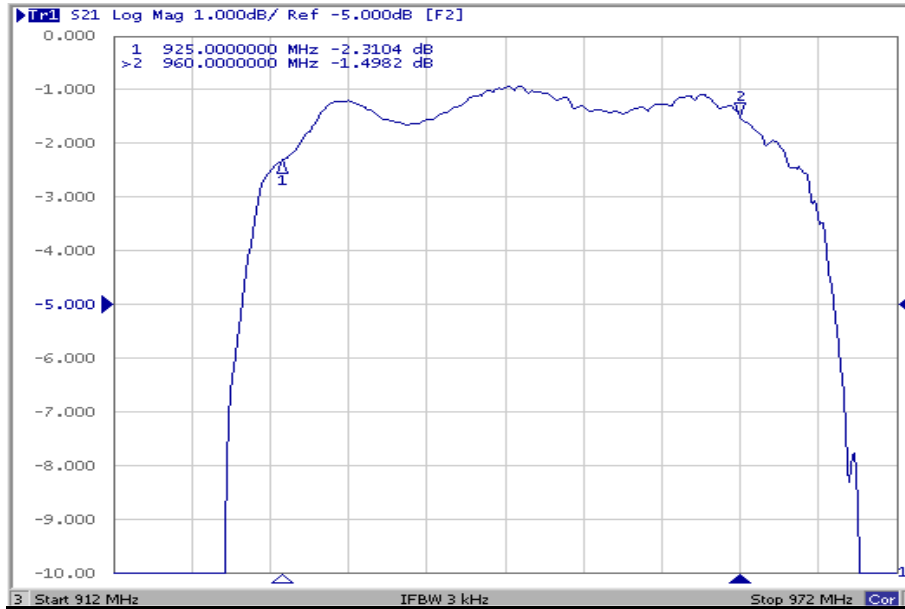
Parameters Description	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	942.5	-
Insertion Loss (925~960 MHz) IL	dB (*1)	-	2.0	3.2
Amplitude Ripple (925~960 MHz)	dB	-	1.3	2.5
VSWR Input (925~960 MHz)	-	-	1.9	2.5
VSWR Output (925~960 MHz)	-	-	2.0	2.5
Attenuation (Reference level from 0 dB)				
880 ~ 915 MHz	dB	45	48	-
980 ~ 1558 MHz	dB	13	26	-
1559 ~ 1607 MHz	dB	40	51	-
1850 ~ 1920 MHz	dB	35	44	-
2400 ~ 2500 MHz	dB	30	38	-
2775 ~ 2880 MHz	dB	28	36	-
3700 ~ 3840 MHz	dB	25	32	-
4625 ~ 4800 MHz	dB	20	30	-
4900 ~ 5950 MHz	dB	18	27	-
5550 ~ 5725 MHz	dB	18	27	-
6475 ~ 6720 MHz	dB	15	25	-
7400 ~ 7680 MHz	dB	15	23	-

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

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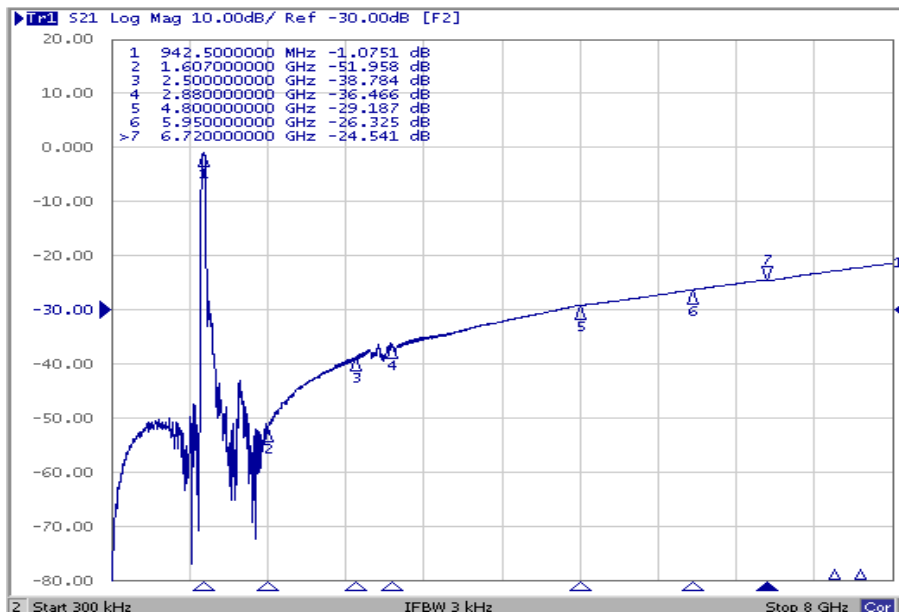
Model: TA1839B
Rev No: 1

C. FREQUENCY CHARACTERISTICS:



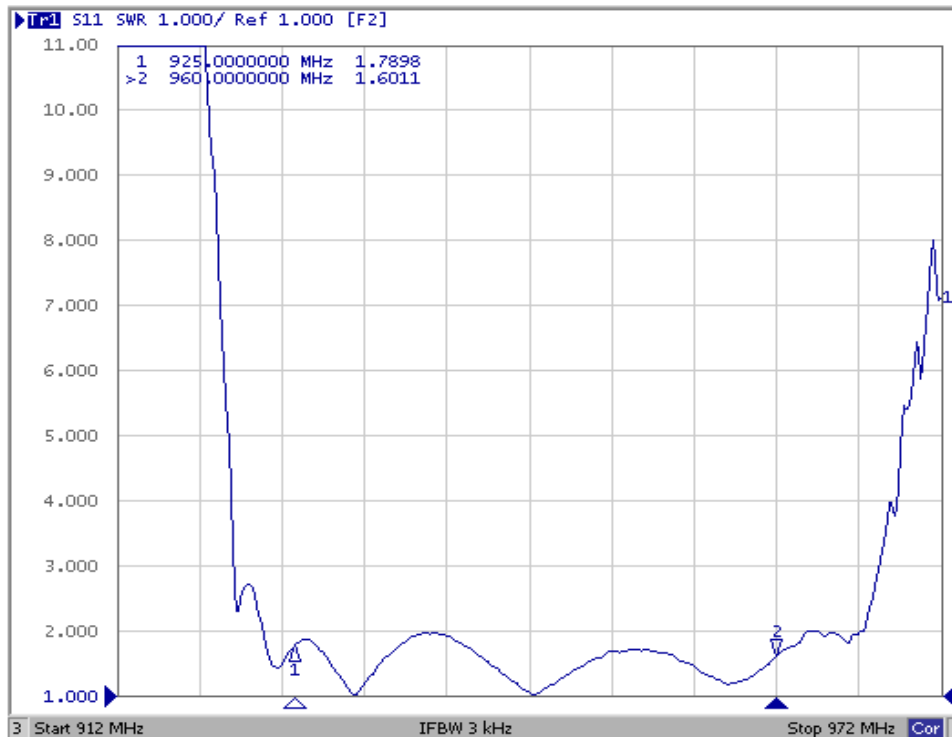
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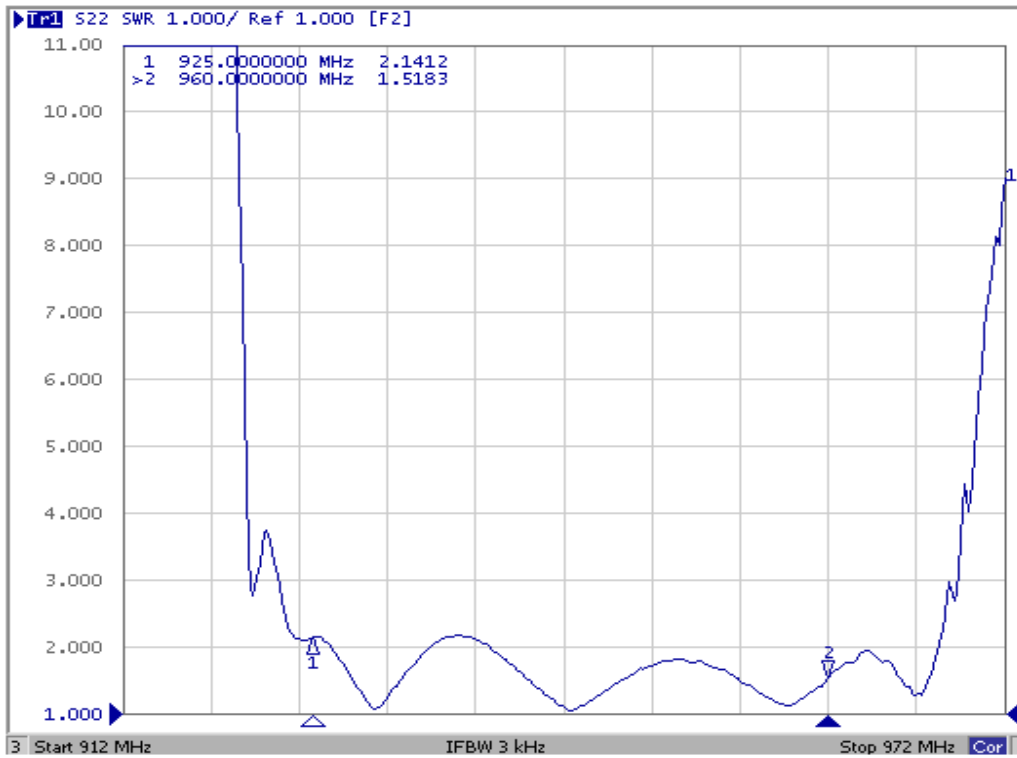
Reflection Functions:

VSWR

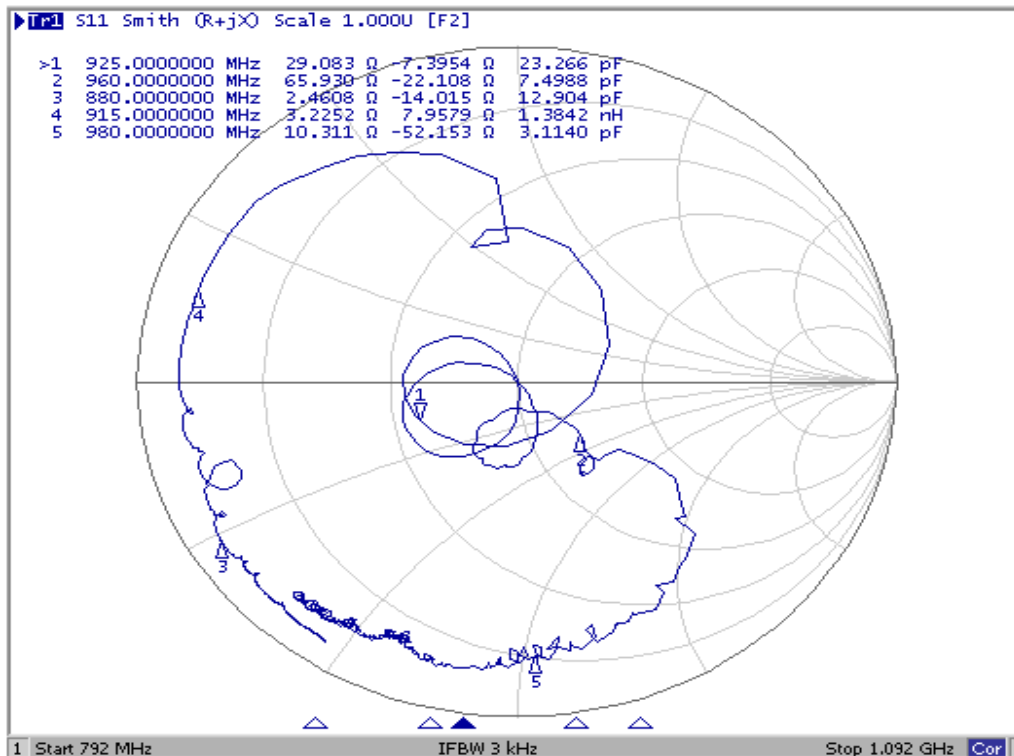


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Rev No: 1

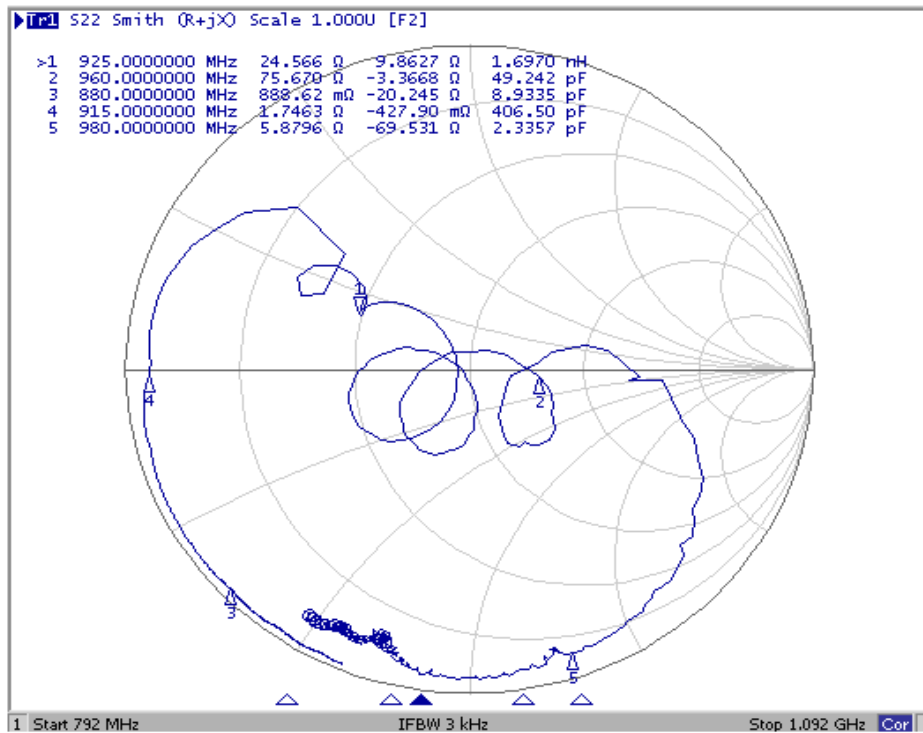


Smith Chart

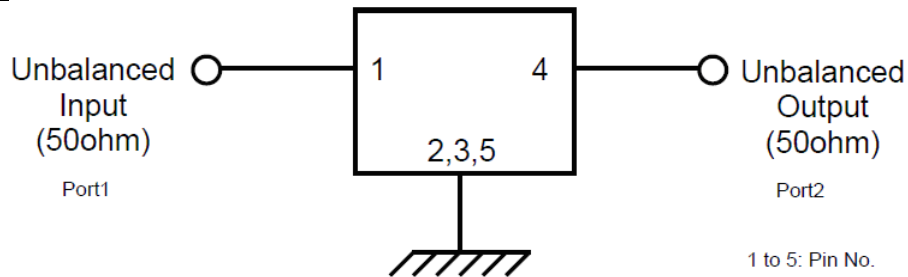


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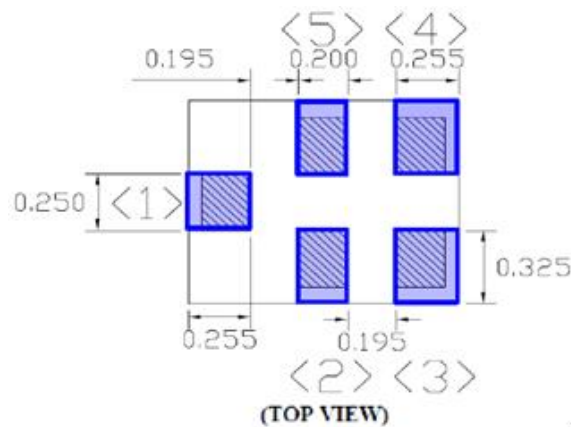
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Rev No: 1



D. MEASUREMENT CIRCUIT:



E. PCB Footprint:

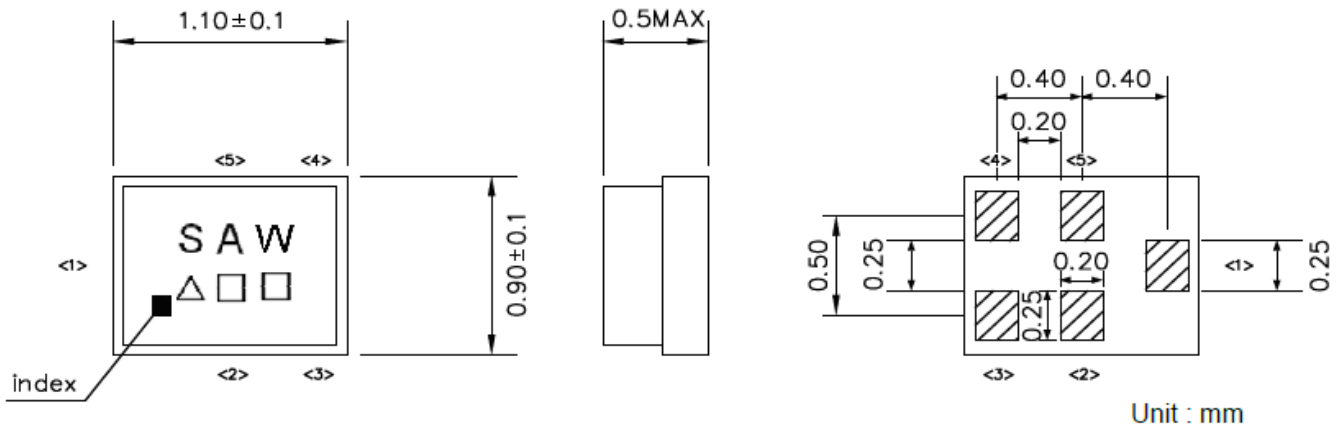


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Rev No: 1

F OUTLINE DRAWING (Mass Production):

Device size: 1.1typ. x 0.9typ. x 0.5max.

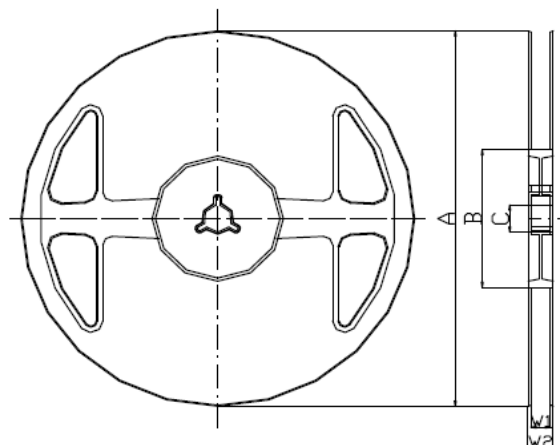


Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

G. PACKING:

1. Reel dimension



Materials of Reel

Material : Polystyrene + Carbon
 Color : Black
 Surface resistance (reference value) : $10^9 \Omega/\text{sq}$ Max.

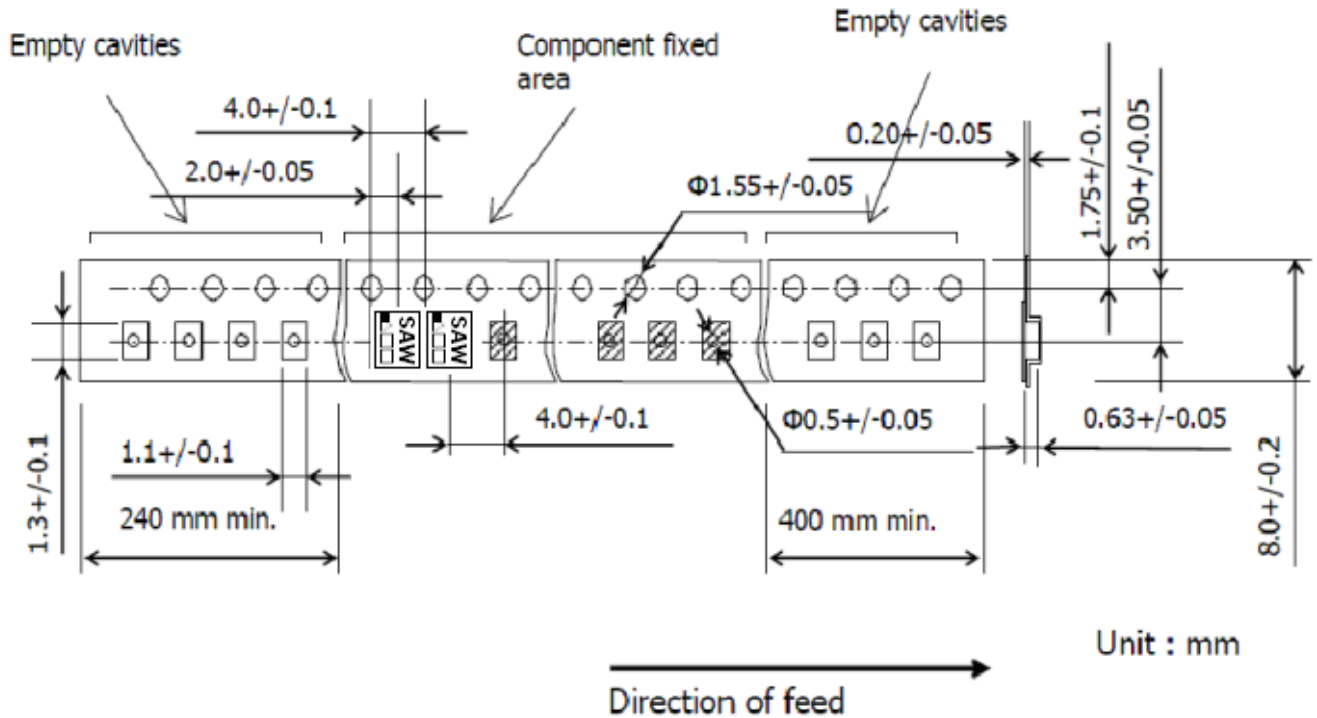
Unit : mm

Code	Quantity	A	B	C	W1	W2
J	5,000 pcs	ϕ 180.0 +0.0/-1.5	ϕ 66.0 +/-0.5	ϕ 13.0 +/-0.2	9.0 +1.0/-0.0	11.4 +/-1.0

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2. Tape dimension



H. Recommended Reflow Profile:

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ 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 $260^\circ\text{C} \pm 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 3 times.

