

**MAXIMUM RATING:**

- Maximum input power: +10 dBm (In Passband)
- Maximum DC Voltage : +/-5 V (Device only)
- Operating temperature: -20 °C to +85 °C
- Device storage temperature: -40 °C to +100 °C
- Moisture Sensitive Level: Level 1
- ESD 100V(MM) 200V(HBM)

**ELECTRICAL CHARACTERISTICS:**

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

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

**942.5 MHz  
SAW Filter**



SM1109-5

Parameters Description			Unit	Min.	Typ.	Max.	Remark
Center Frequency			MHz	-	942.5	-	
Insertion Loss(*1)		925~960 MHz	dB	-	2.0	3.0	
Amplitude Ripple		925~960 MHz	dB	-	1.3	2.3	
VSWR	Input	925~960 MHz	-	-	1.9	2.3	
	Output	925~960 MHz	-	-	2.0	2.3	
Attenuation:							
880~915 MHz			dB	46	48	-	
980~1558 MHz			dB	15	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.

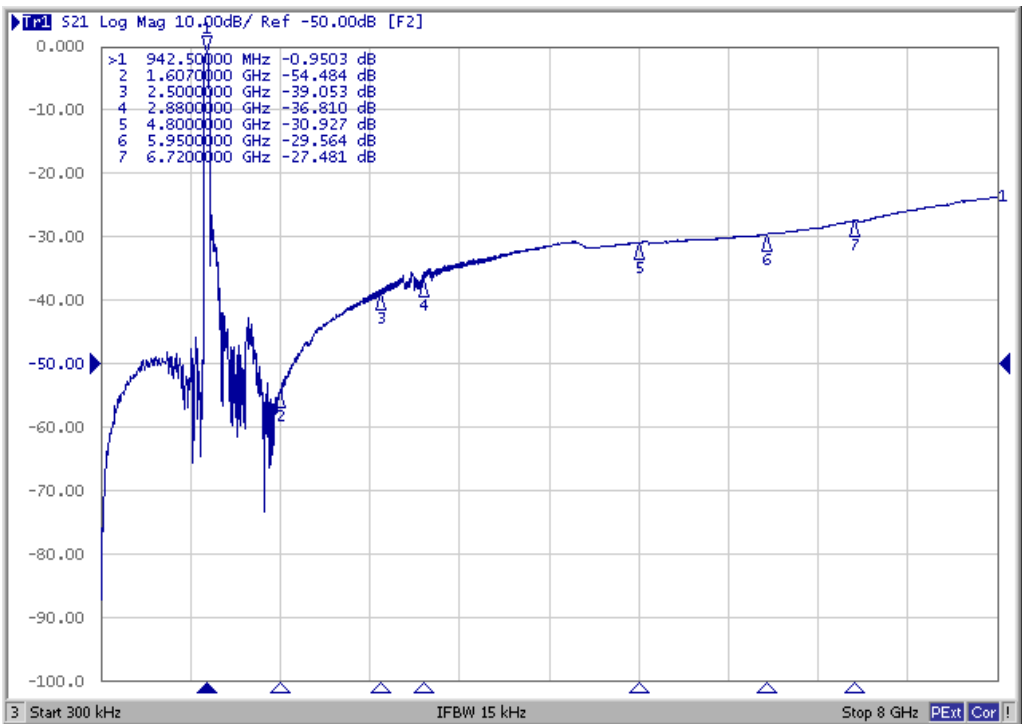
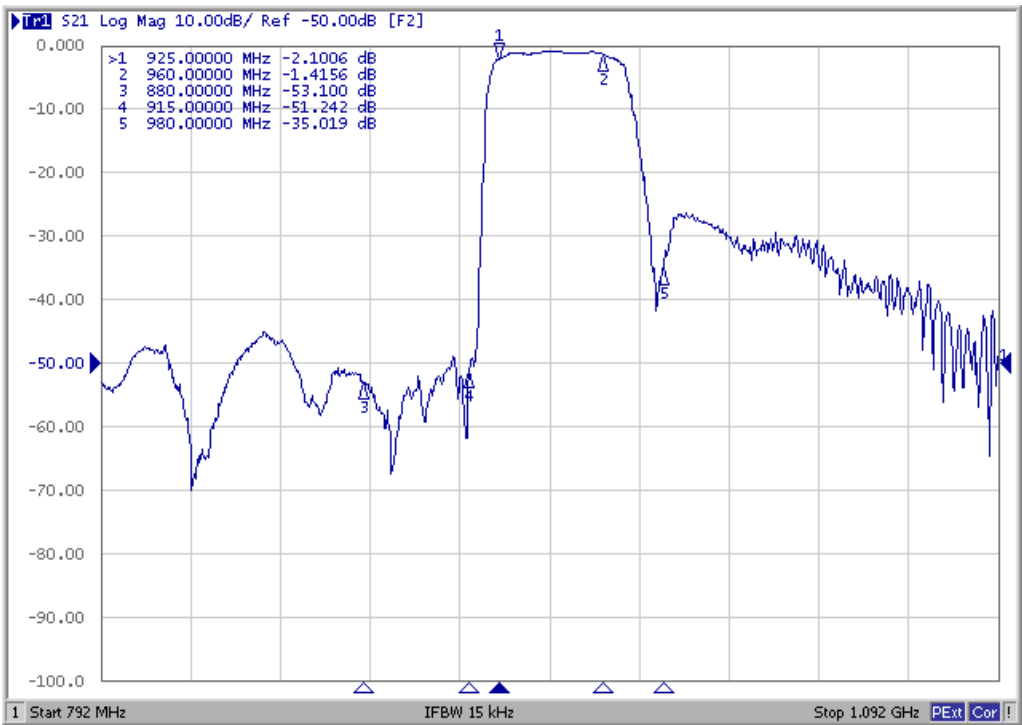


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

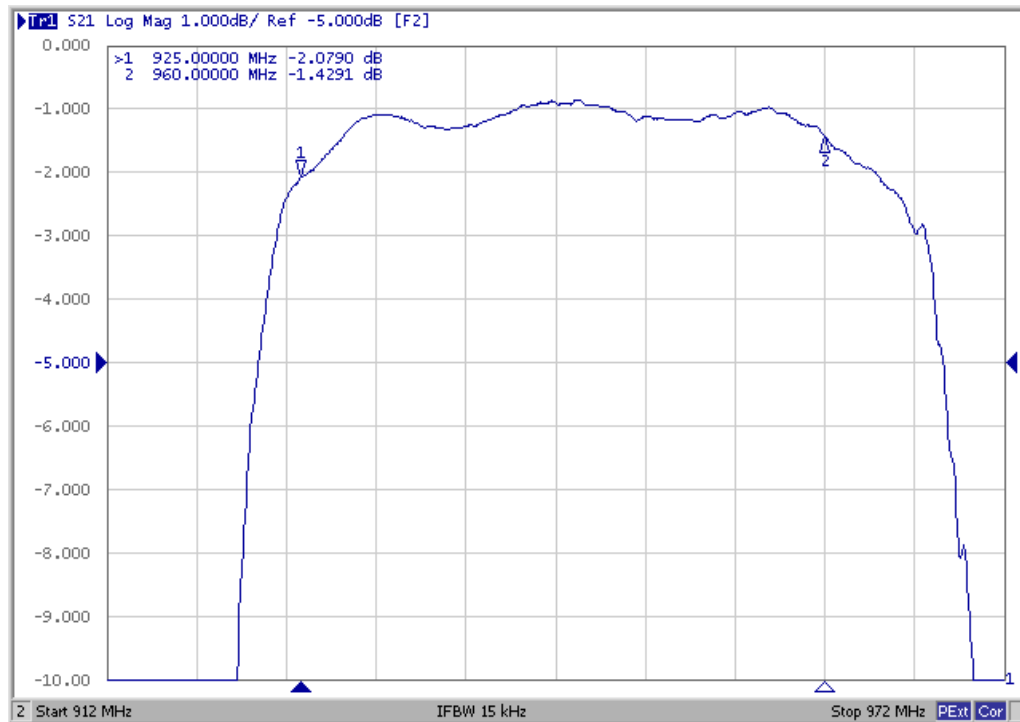
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

FREQUENCY CHARACTERISTICS:

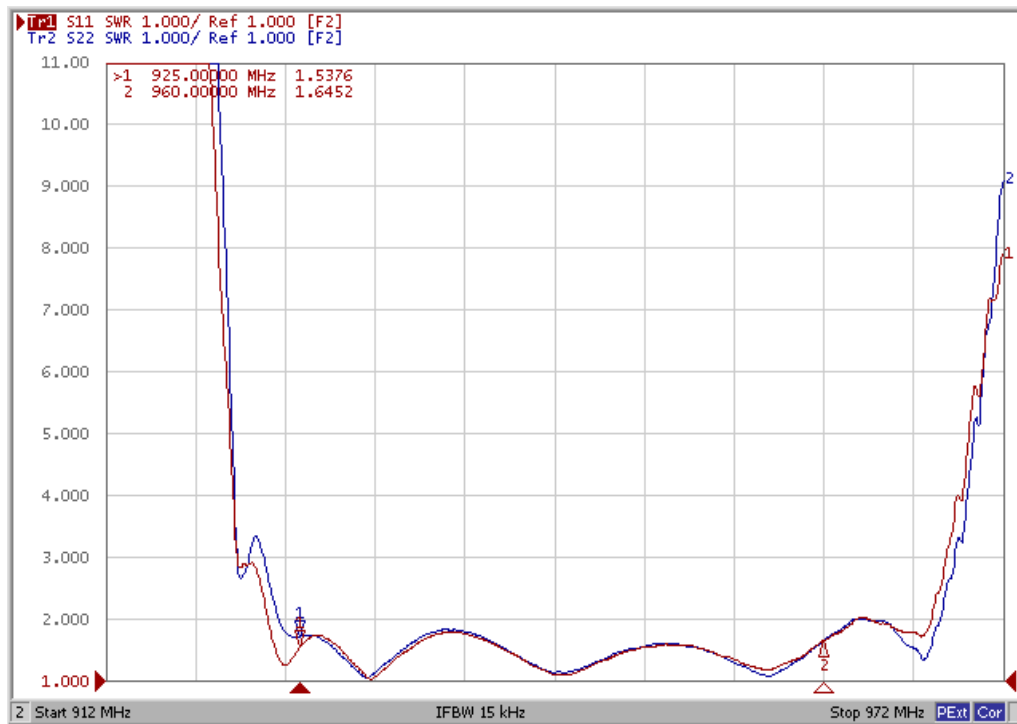
Frequency Response



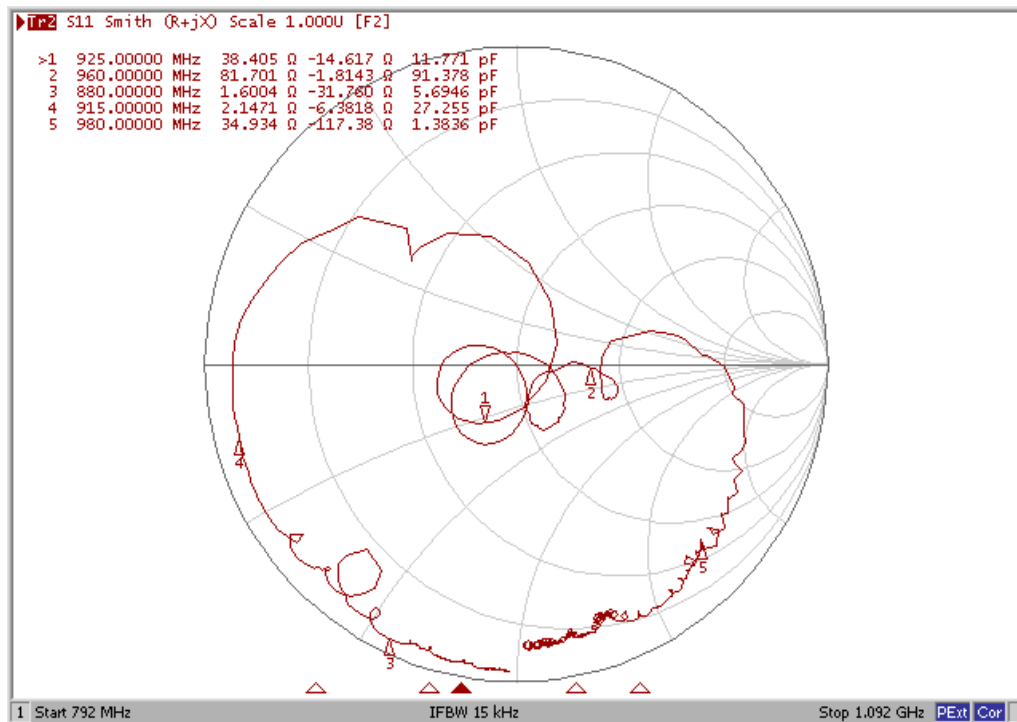
## Ripple



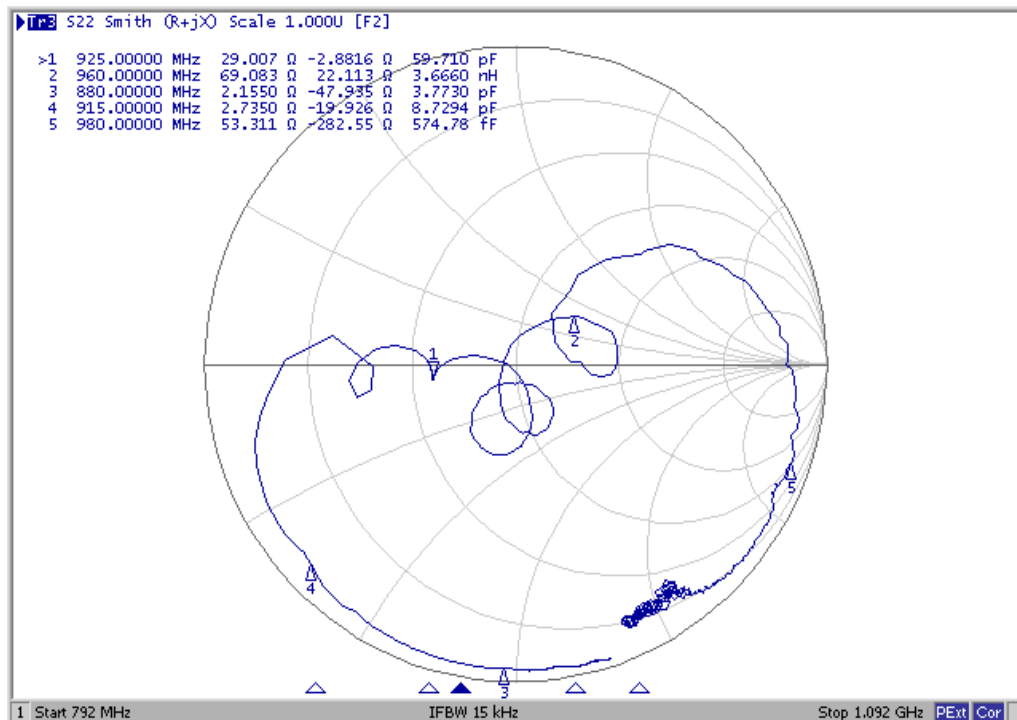
## VSWR



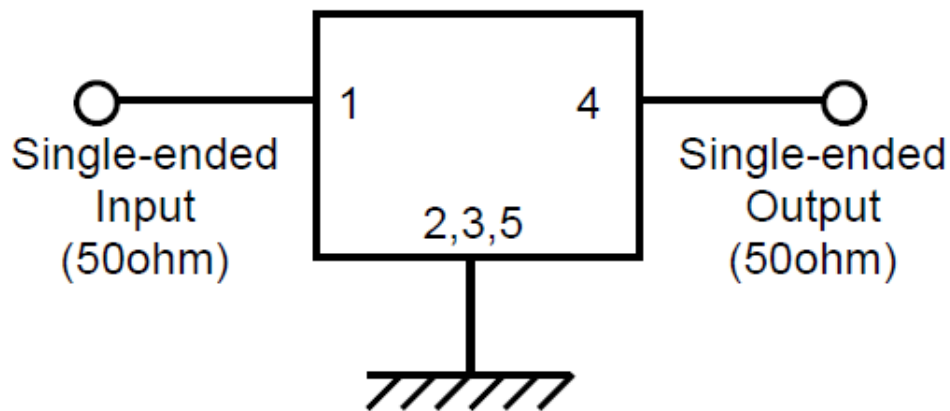
## S11



## S22

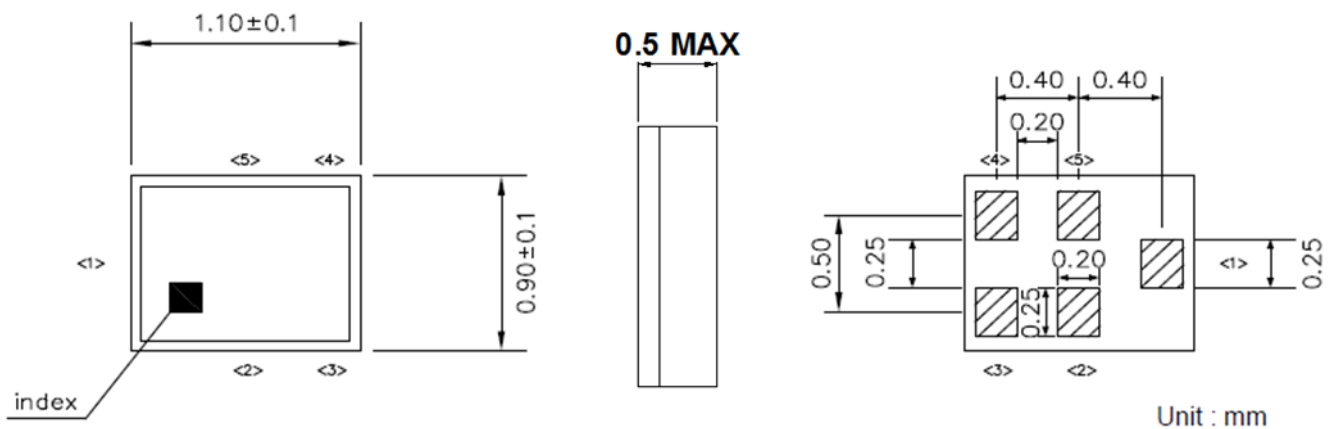


## MEASUREMENT CIRCUIT:



## OUTLINE DRAWING:

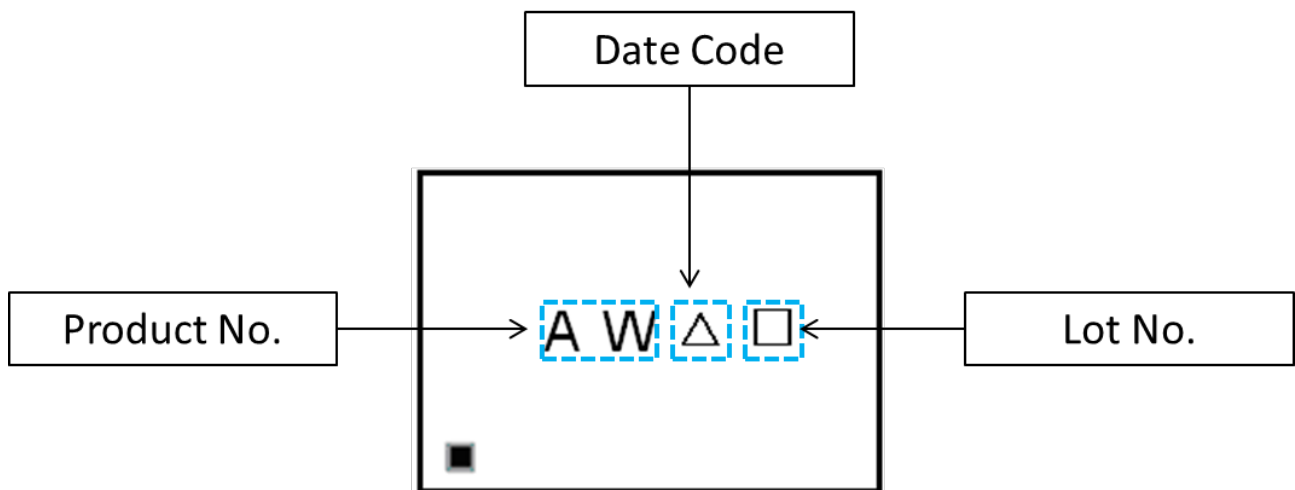
Device size: 1.1typ. x 0.9typ. x 0.5max



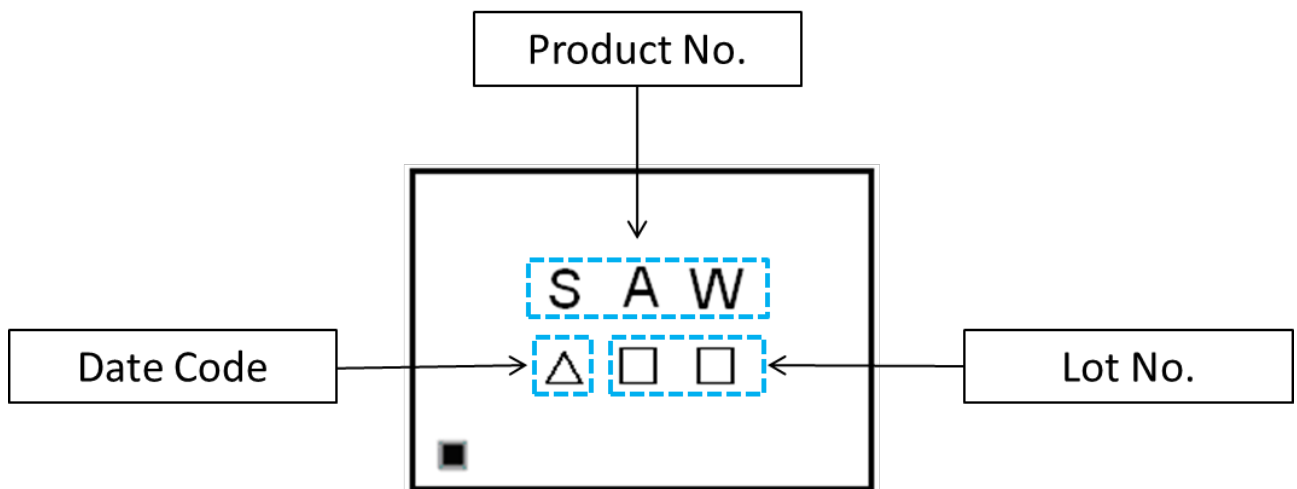
## Pin Configuration

Pin No.	Symbol	Function
1	IN	Single-ended pin
2	GND	Ground
3	GND	Ground
4	OUT	Single-ended pin
5	GND	Ground

**Top View (Sample Production):**



**Top View (Mass Production):**



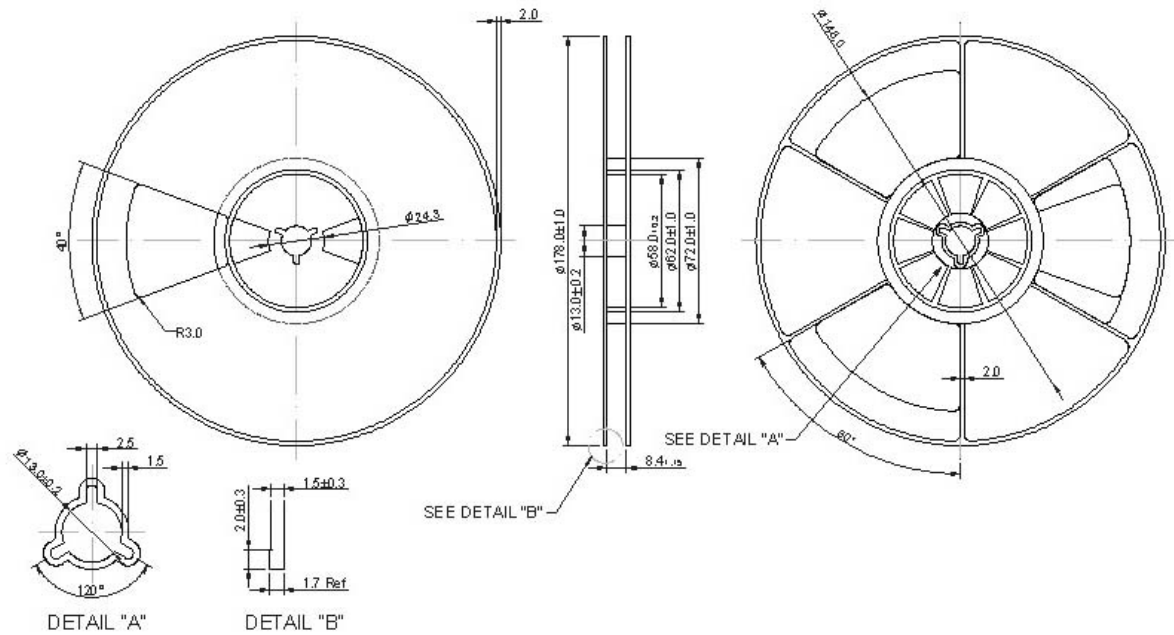
△ : **Date Code**

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

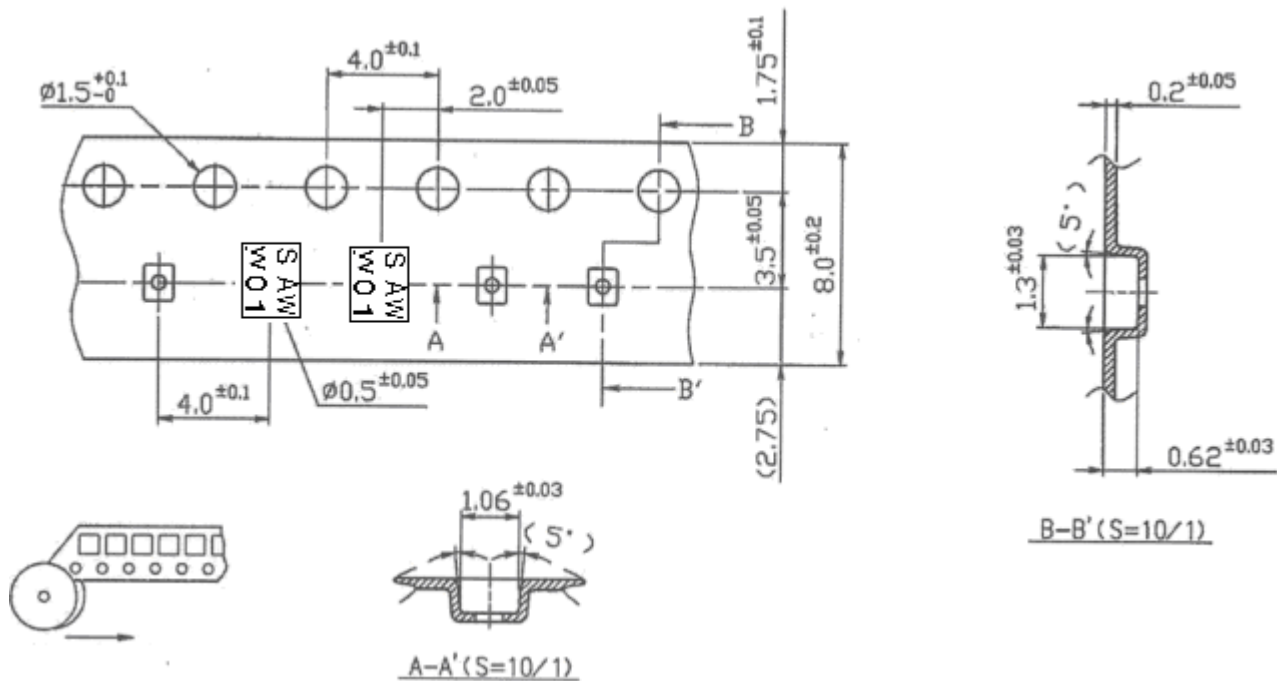
## PACKING:

### 1. REEL DIMENSION

Reel Count: 7" = 5000



### 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 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

