

SF2543LA

**1732.5 MHz
SAW Filter**



SM1109

MAXIMUM RATING:

- Maximum Input Power: 10 dBm
- DC voltage: +/-5 V
- Operating Temperature: -40 °C to +85 °C
- Storage Temperature: -40 °C to +85 °C
- Moisture Sensitivity Level: Level 1 (MSL 1)
- ESD: 50 V(MM), 100 V(HBM)
- AEC-Q200 Qualified

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 | - | 1732.5 | - |
| Insertion Loss (1710~1755 MHz) IL | dB(*1) | - | 1.7 | 2.2 |
| Amplitude Ripple (1710~1755 MHz) | dB _{p-p} | - | 0.7 | 1.4 |
| VSWR (1710~1755 MHz) | - | - | 1.7 | 2.2 |
| Attenuation (Reference level from 0 dB) | | | | |
| 50 ~ 1355 MHz | dB | 30 | 35 | - |
| 1574 ~ 1577 MHz | dB | 30 | 40 | - |
| 1600 ~ 1680 MHz | dB | 18 | 26 | - |
| 1805 ~ 1880 MHz | dB | 19 | 24 | - |
| 1930 ~ 1990 MHz | dB | 25 | 35 | - |
| 2110 ~ 2170 MHz | dB | 34 | 37 | - |
| 2200 ~ 2700 MHz | dB | 20 | 33 | - |
| 2700 ~ 3800 MHz | dB | 20 | 29 | - |
| 3800 ~ 6000 MHz | dB | 10 | 21 | - |

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

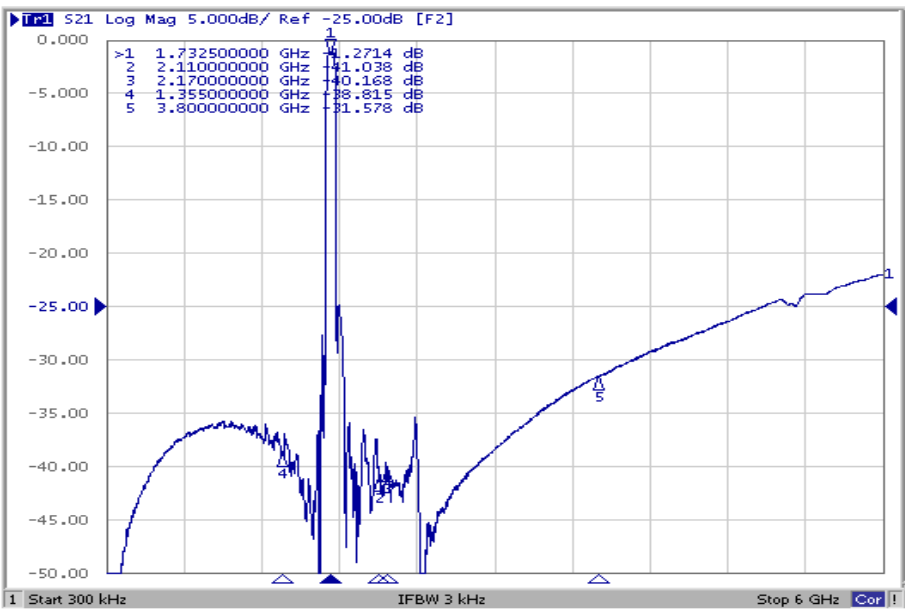
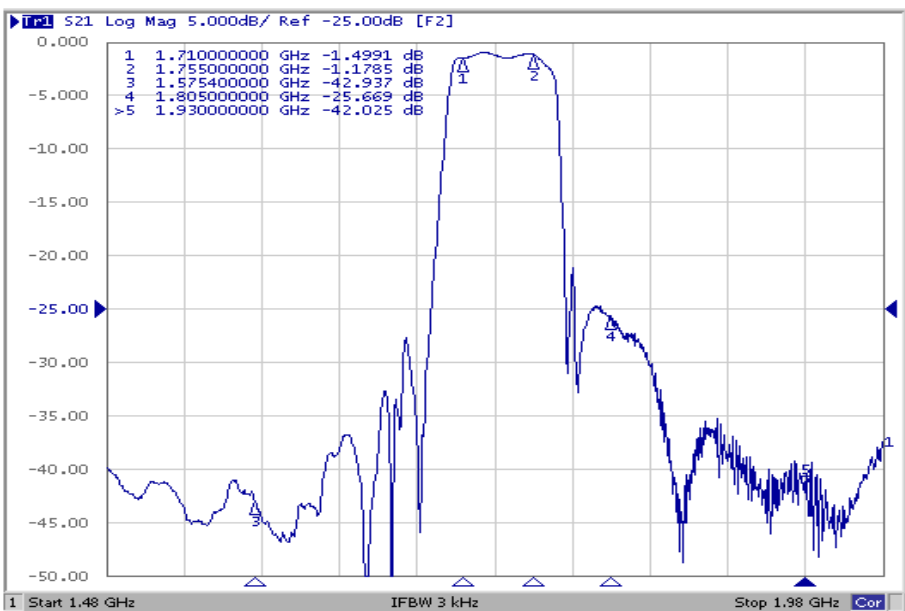
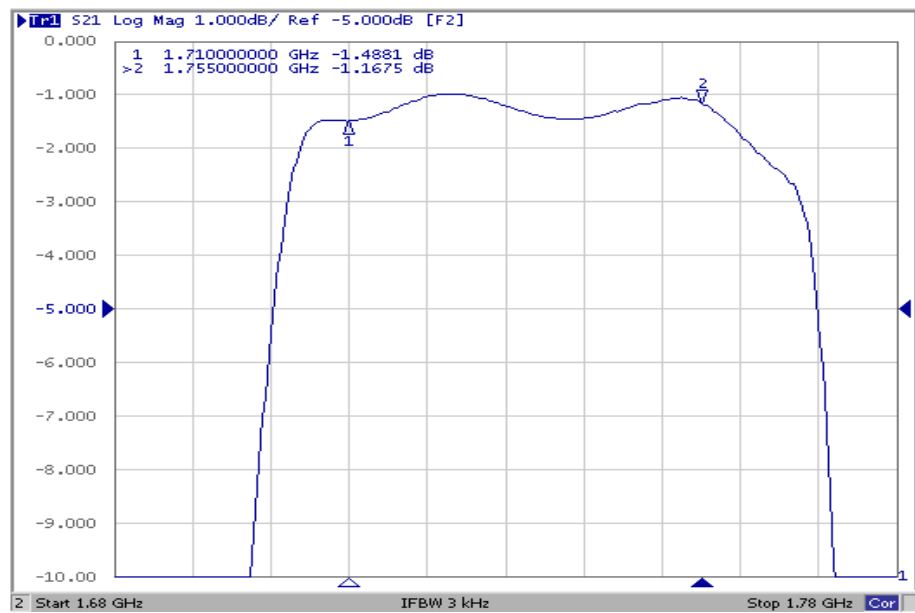


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

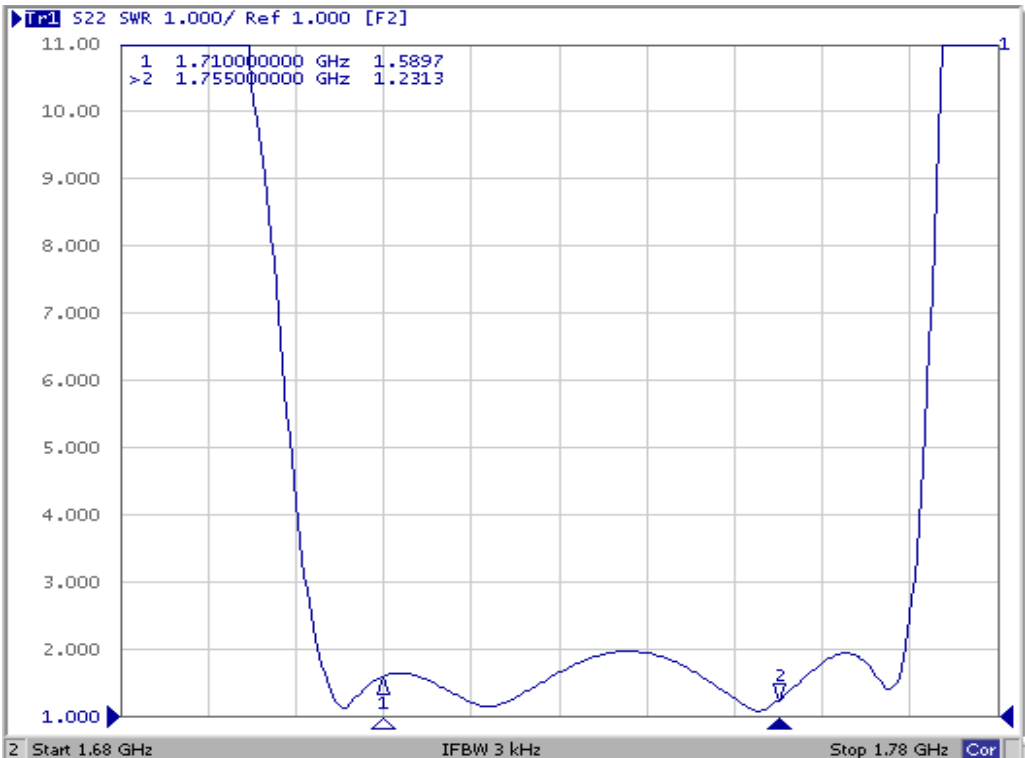
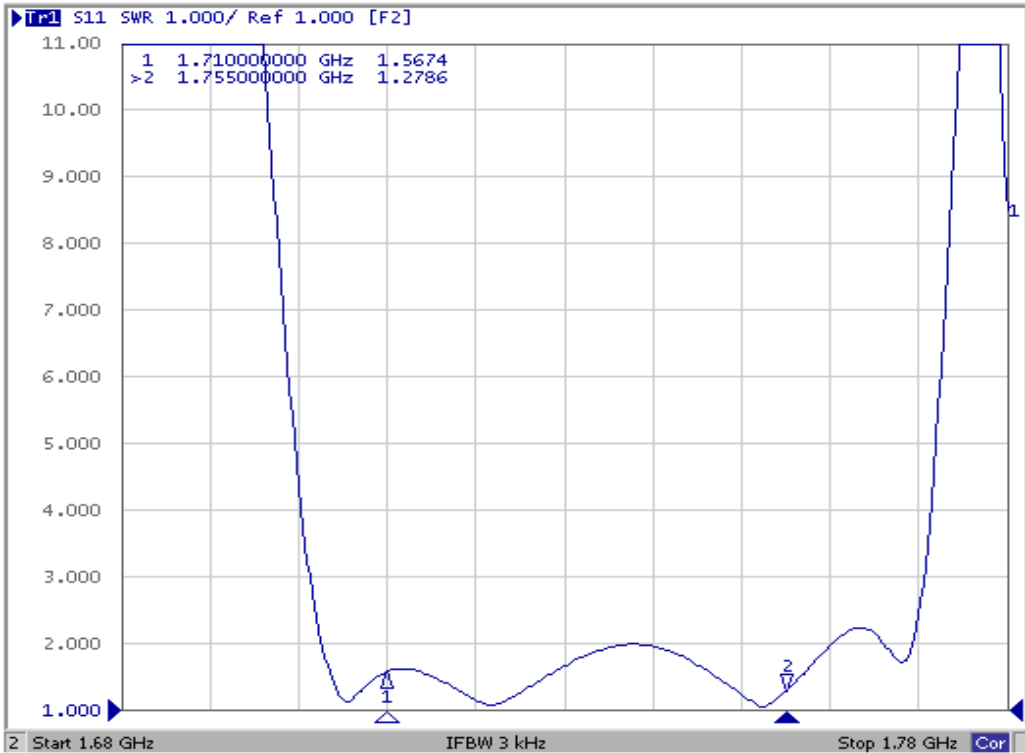
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

FREQUENCY CHARACTERISTIC:

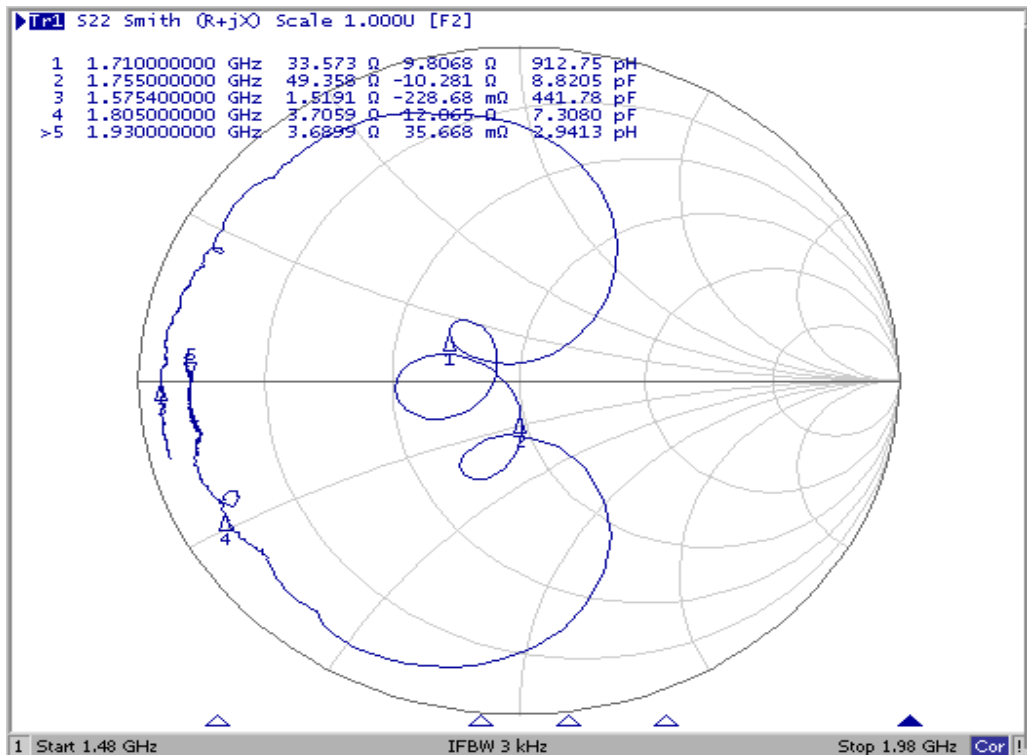
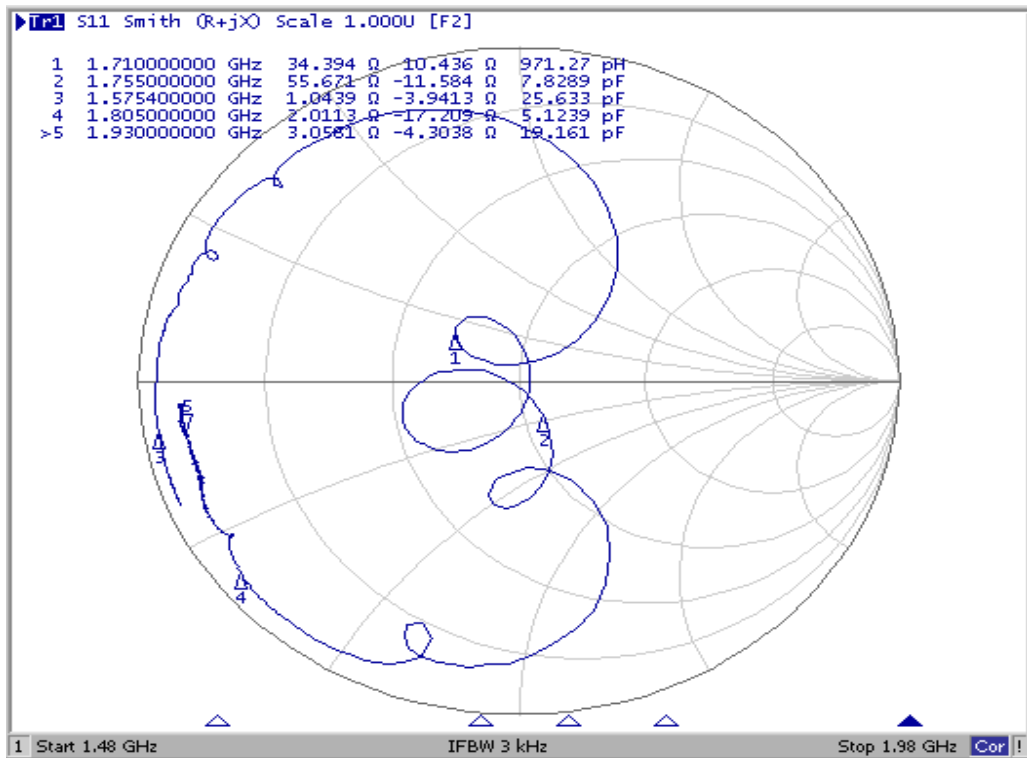


Reflection Functions:

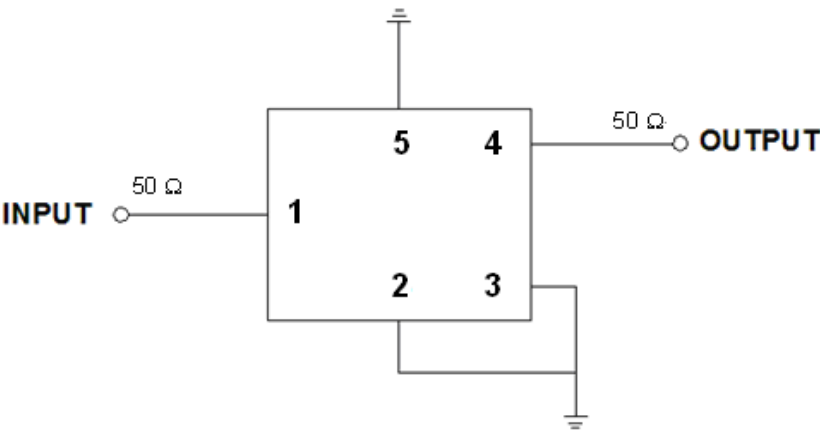
VSWR



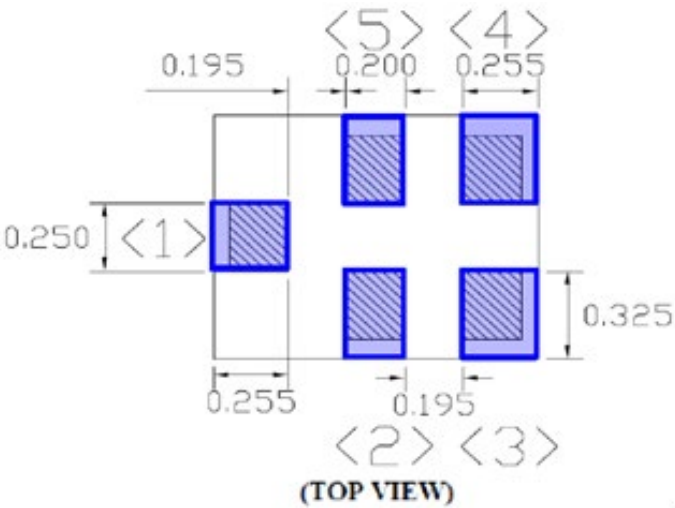
Smith Chart



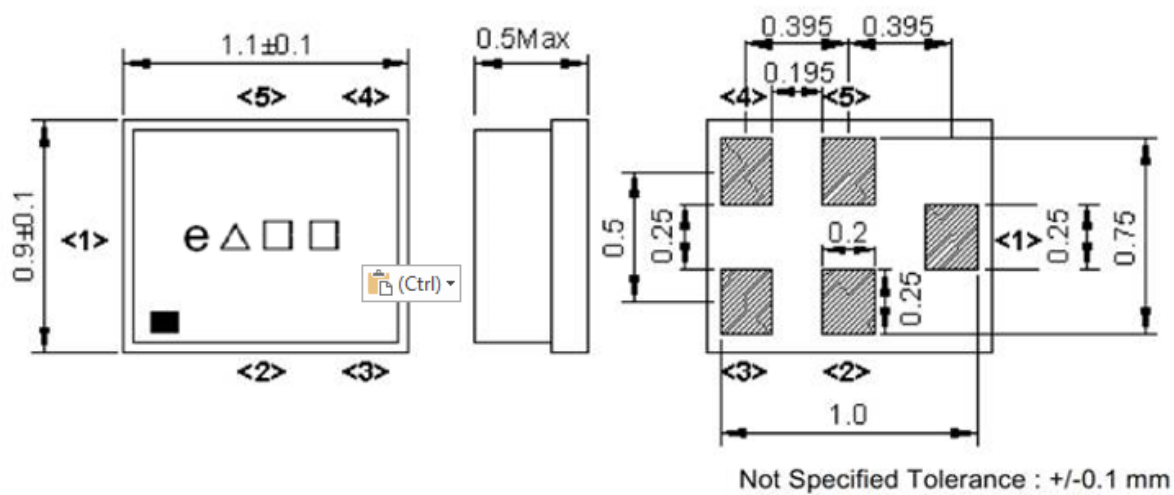
MEASUREMENT CIRCUIT:



PCB Footprint:



OUTLINE DRAWING:



Pin Configuration

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

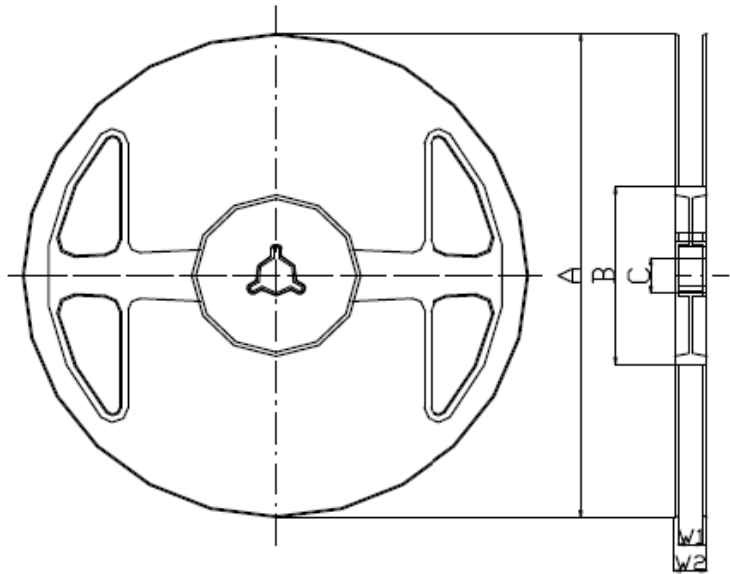
- △ : Date Code
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Date Code:

| Year | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 2015 | a | b | c | d | e | f | g | h | j | k | l | m |
| 2016 | n | p | q | r | s | t | u | v | w | x | y | z |
| 2017 | A | B | C | D | E | F | G | H | J | K | L | M |
| 2018 | N | P | Q | R | S | T | U | ▽ | W | X | Y | Z |

PACKING
REEL
DIMENSION

Reel Count:
7" = 5000
13" = 10,000



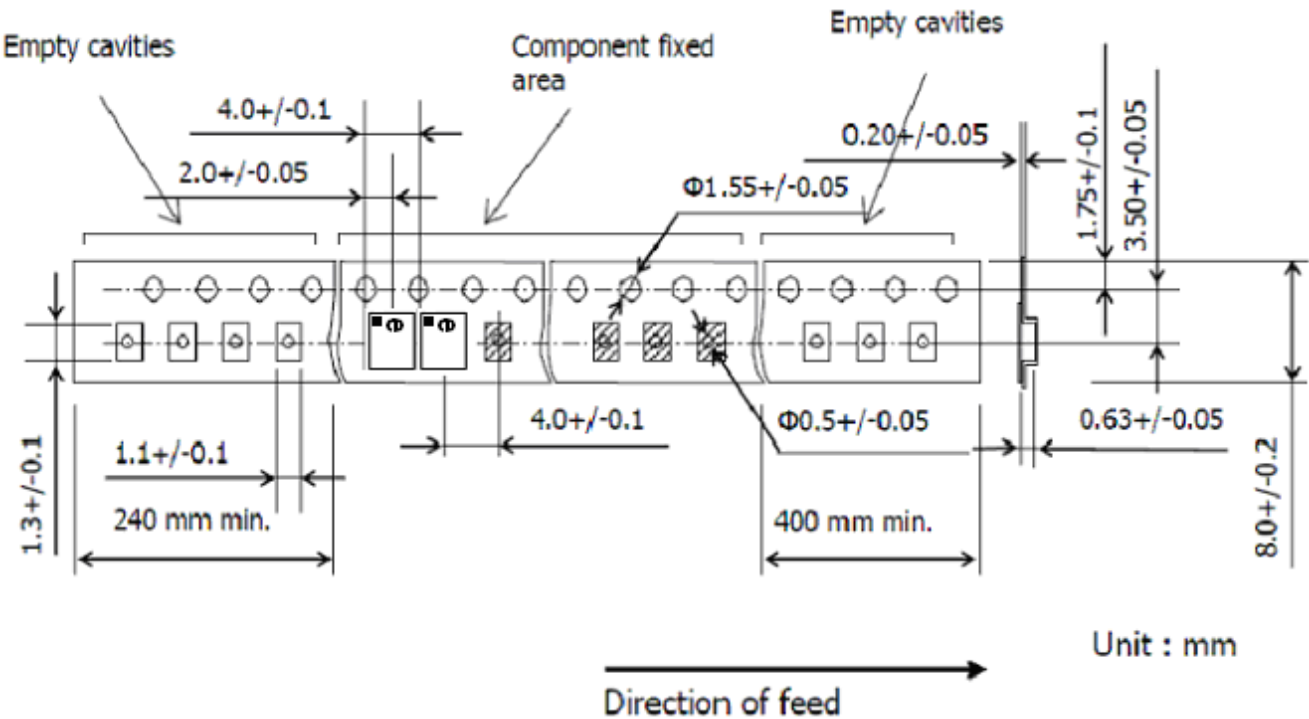
Materials of Reel

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

Unit : mm

| A | B | C | W1 | W2 |
|------------------------|--------------------|--------------------|-----------------|---------------|
| $\phi 180.0 +0.0/-1.5$ | $\phi 66.0 +/-0.5$ | $\phi 13.0 +/-0.2$ | $9.0 +1.0/-0.0$ | $11.4 +/-1.0$ |

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.

