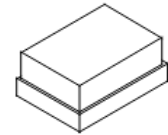


MAXIMUM RATING:

- Input Power Level: +23 dBm
- DC Voltage : 0V
- Operating Temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Moisture Sensitive Level: Level 1 (MSL1)
- ESD 50V(MM), 100V(HBM).

**2442 MHz
SAW Filter**



SM1411-5

ELECTRICAL CHARACTERISTICS:

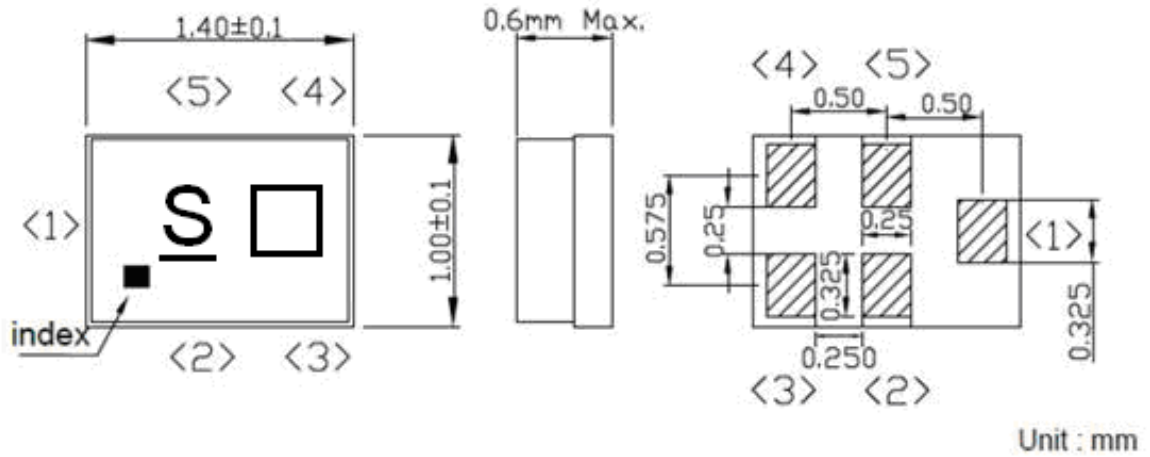
Terminating source impedance: $Z_s = 50 \Omega$

Terminating load impedance: $Z_L = 50 \Omega$

| Item | Unit | Min. | Typ. | Max. |
|------------------------------------------------|------|------|------|------|
| Center Frequency | MHz | - | 2442 | - |
| Insertion Loss (2400~2484 MHz) | dB | - | 2.4 | 3.5 |
| Amplitude Ripple (2400~2484 MHz) | dB | - | 0.8 | 2.5 |
| VSWR (2400~2484 MHz) | - | - | 2.2 | 2.5 |
| Attenuation (reference level from 0 dB) | | | | |
| 10 ~ 960 MHz | dB | 35 | 50 | - |
| 960 ~ 1570 MHz | dB | 30 | 38 | - |
| 1570 ~ 1580 MHz | dB | 30 | 38 | - |
| 1580 ~ 1710 MHz | dB | 30 | 38 | - |
| 1710 ~ 1910 MHz | dB | 30 | 38 | - |
| 1910 ~ 1980 MHz | dB | 30 | 42 | - |
| 2110 ~ 2170 MHz | dB | 35 | 48 | - |
| 2545 ~ 2575 MHz | dB | 30 | 37 | - |
| 2570 ~ 2620 MHz | dB | 30 | 37 | - |
| 2595 ~ 2625 MHz | dB | 30 | 37 | - |
| 2640 ~ 3000 MHz | dB | 30 | 37 | - |
| 3000 ~ 5000 MHz | dB | 20 | 28 | - |
| 5000 ~ 6000 MHz | dB | 15 | 20 | - |

OUTLINE DRAWING:

Device size: 1.4typ. x1.0typ. x 0.6max



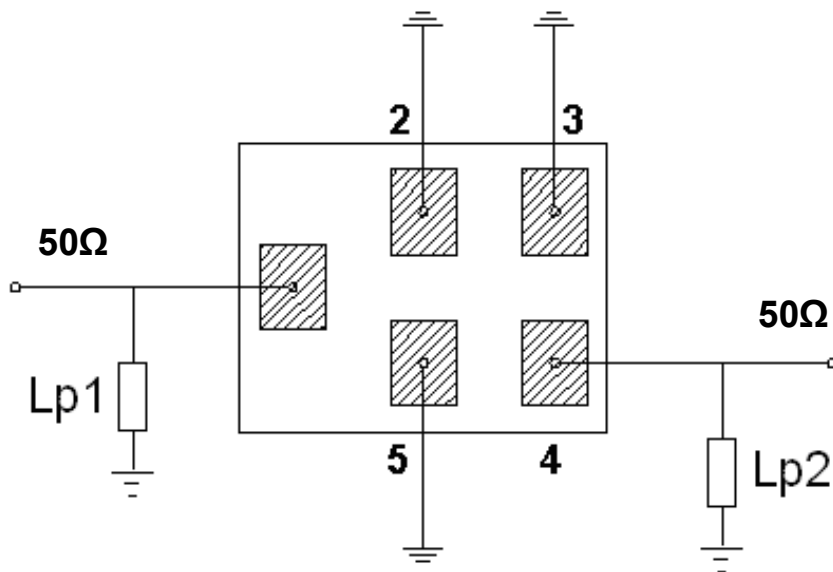
| Pin No. | Symbol | Function |
|---------|--------|----------|
| 1 | IN | Input |
| 2 | GND | Ground |
| 3 | GND | Ground |
| 4 | OUT | Output |
| 5 | GND | Ground |

□ : Year/Month Code (Follow the table)

| YEAR/Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2021 | A | B | C | D | 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 |
| 2024 | n | p | q | r | s | t | u | v | w | x | y | z |
| 2025 | <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | <u>E</u> | <u>F</u> | <u>G</u> | <u>H</u> | <u>J</u> | <u>K</u> | <u>L</u> | <u>M</u> |
| 2026 | <u>N</u> | <u>P</u> | <u>Q</u> | <u>R</u> | <u>S</u> | <u>T</u> | <u>U</u> | <u>V</u> | <u>W</u> | <u>X</u> | <u>Y</u> | <u>Z</u> |
| 2027 | <u>a</u> | <u>b</u> | <u>c</u> | <u>d</u> | <u>e</u> | <u>f</u> | <u>g</u> | <u>h</u> | <u>i</u> | <u>k</u> | <u>l</u> | <u>m</u> |
| 2028 | <u>n</u> | <u>p</u> | <u>q</u> | <u>r</u> | <u>s</u> | <u>t</u> | <u>u</u> | <u>v</u> | <u>w</u> | <u>x</u> | <u>y</u> | <u>z</u> |

MEASUREMENT CIRCUIT:

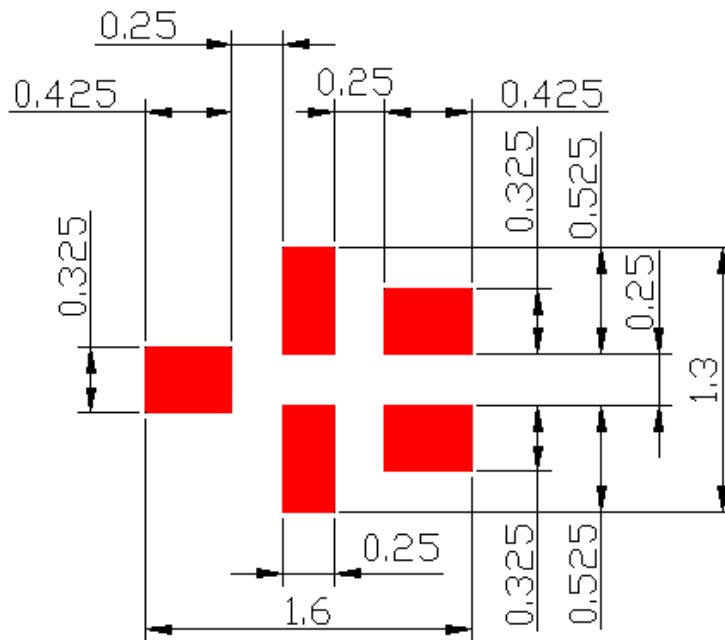
* By Network analyzer simulation matching with port extension



$Lp1 = Lp2 = 3.6 \text{ nH}$

- (1): Unbalance Port
- (4): Unbalance Port
- Others: Ground

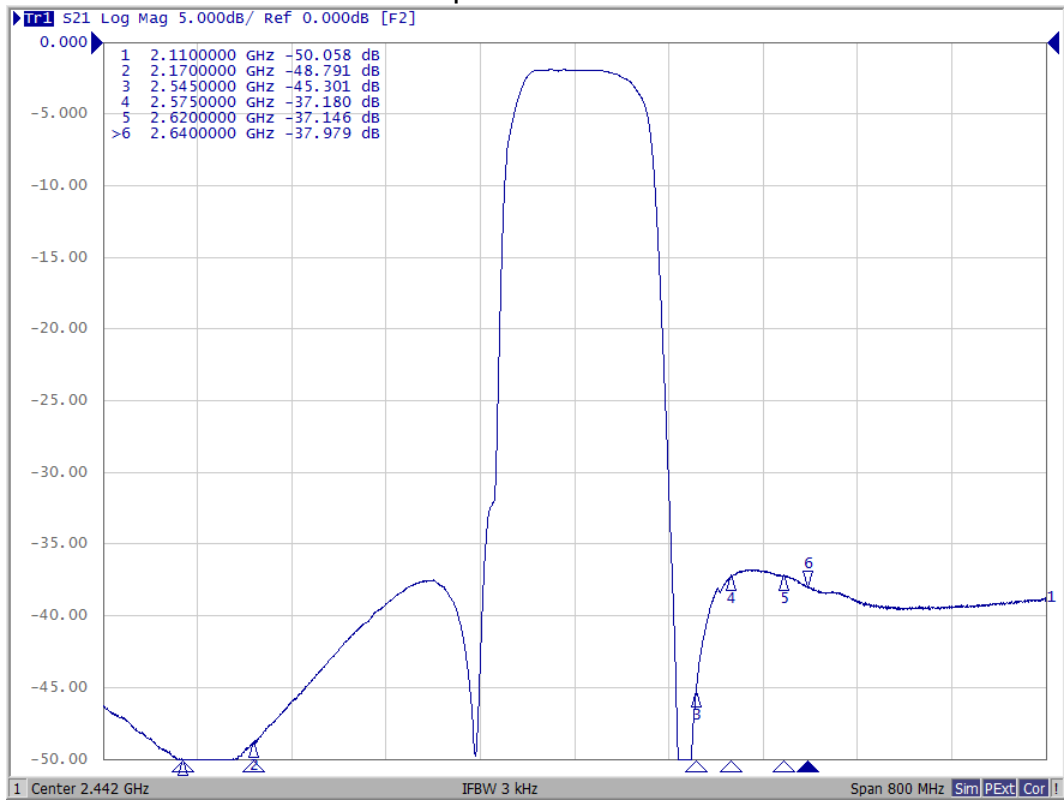
PCB Footprint:



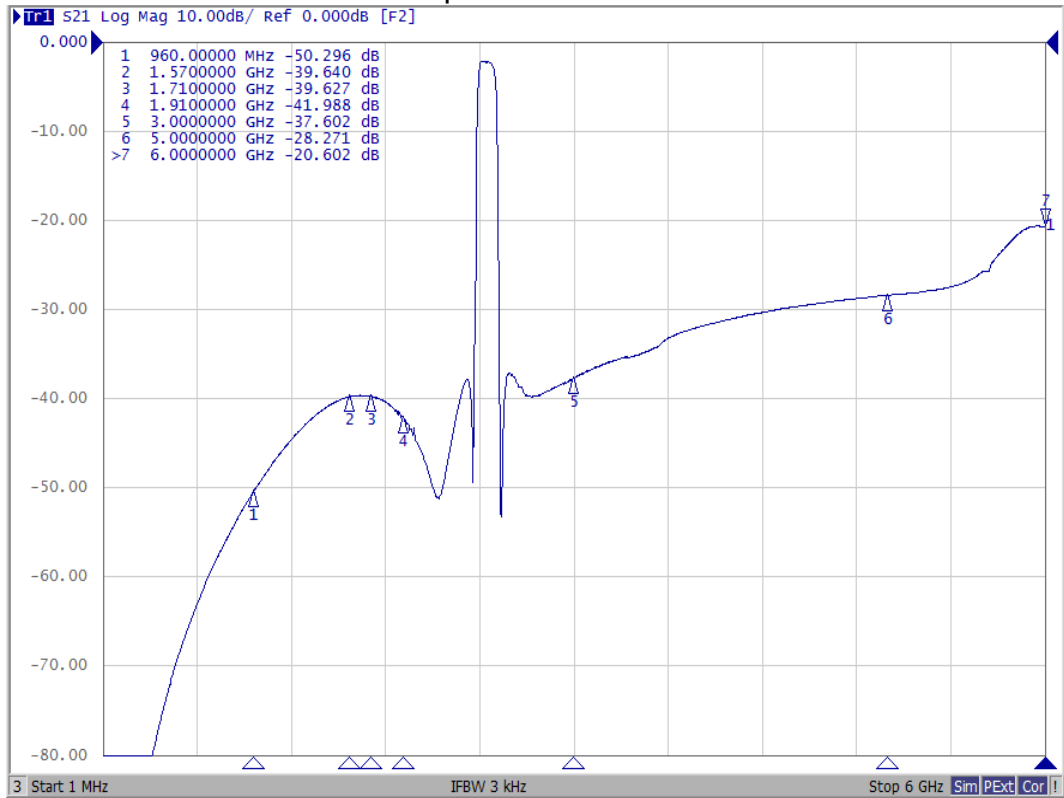
: Land Pattern
Unit : mm

Frequency Characteristics:

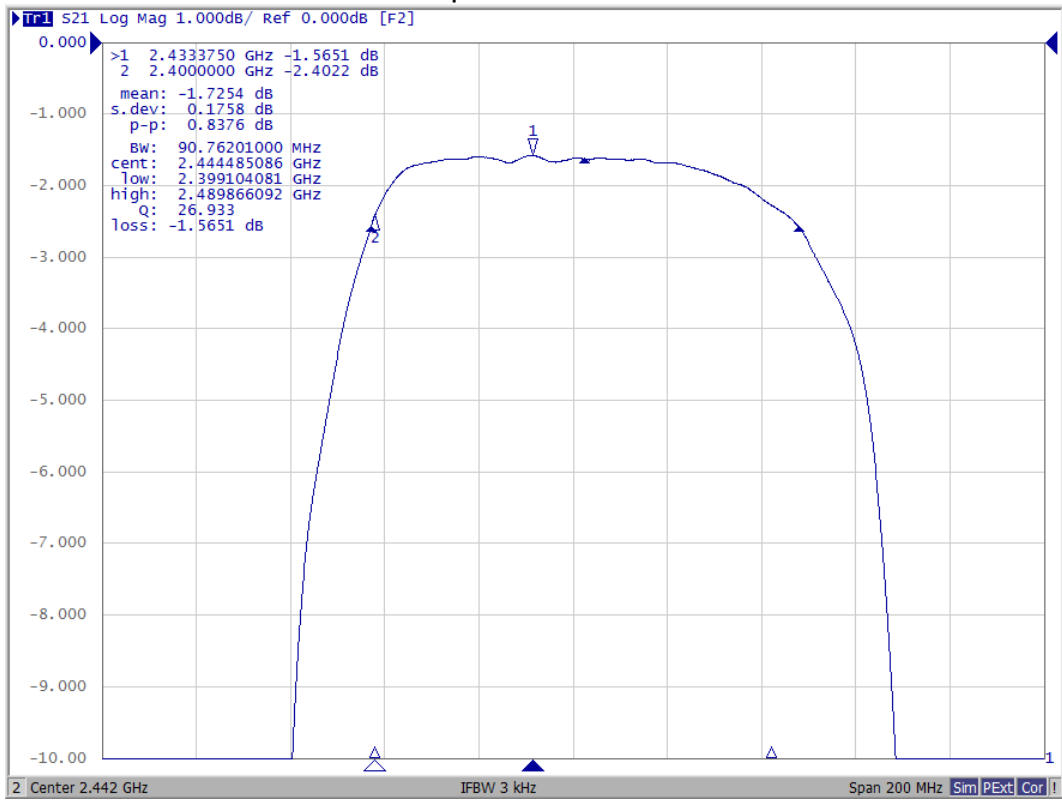
Span 800 MHz



Span 6000 MHz

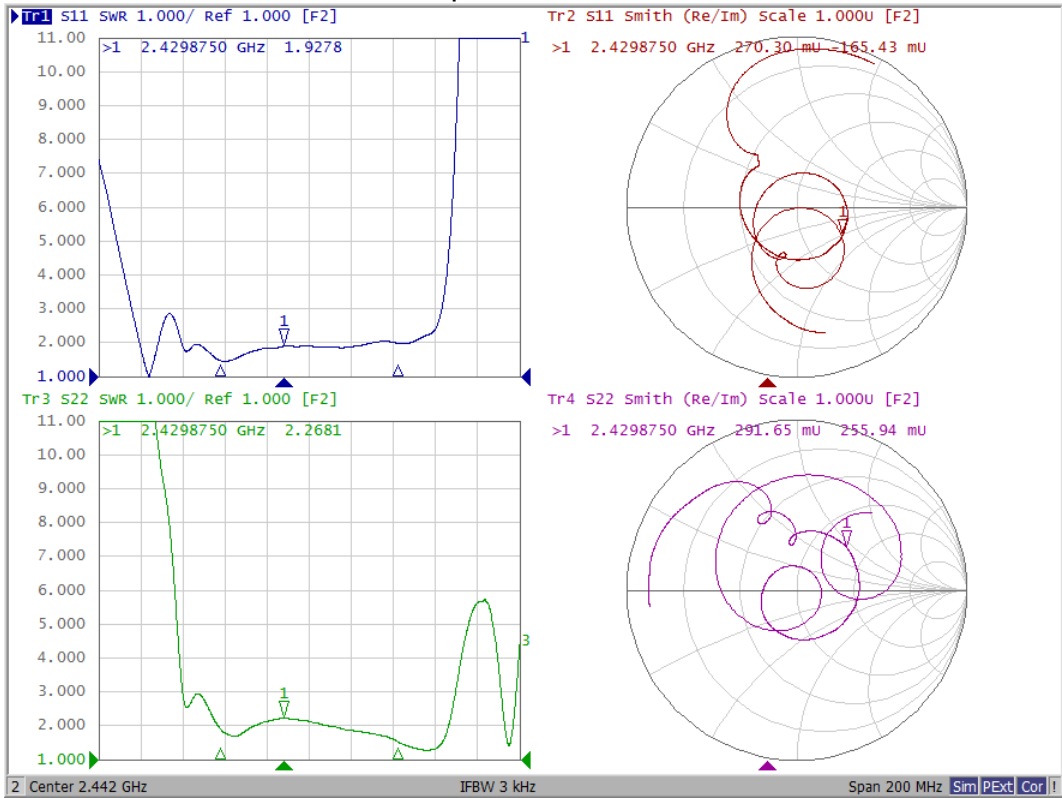


Span 200 MHz



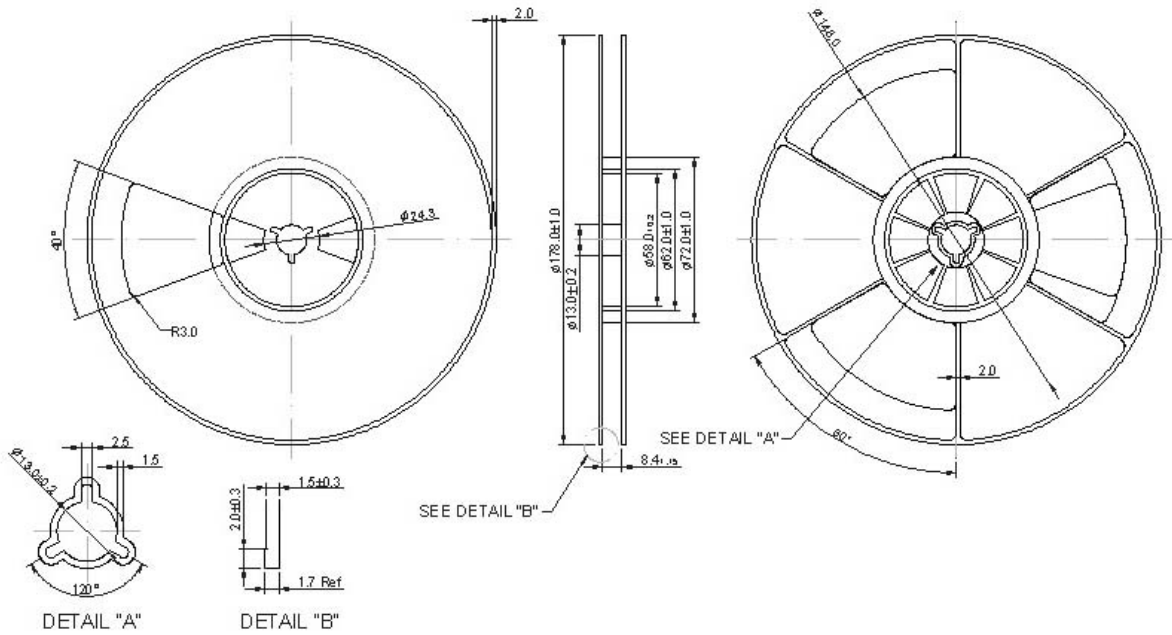
Reflection Functions:

Span 200 MHz

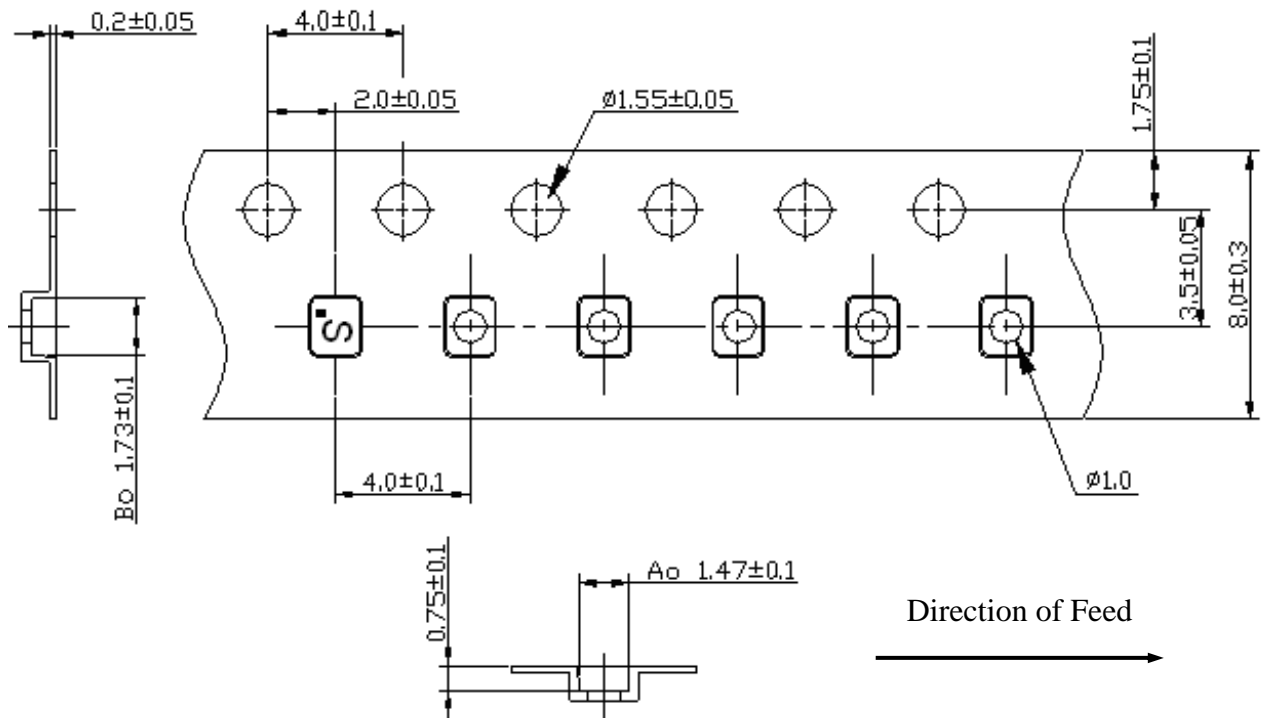


PACKING: REEL DIMENSION

Reel Count:
 7" = 2000
 13" = 10,000

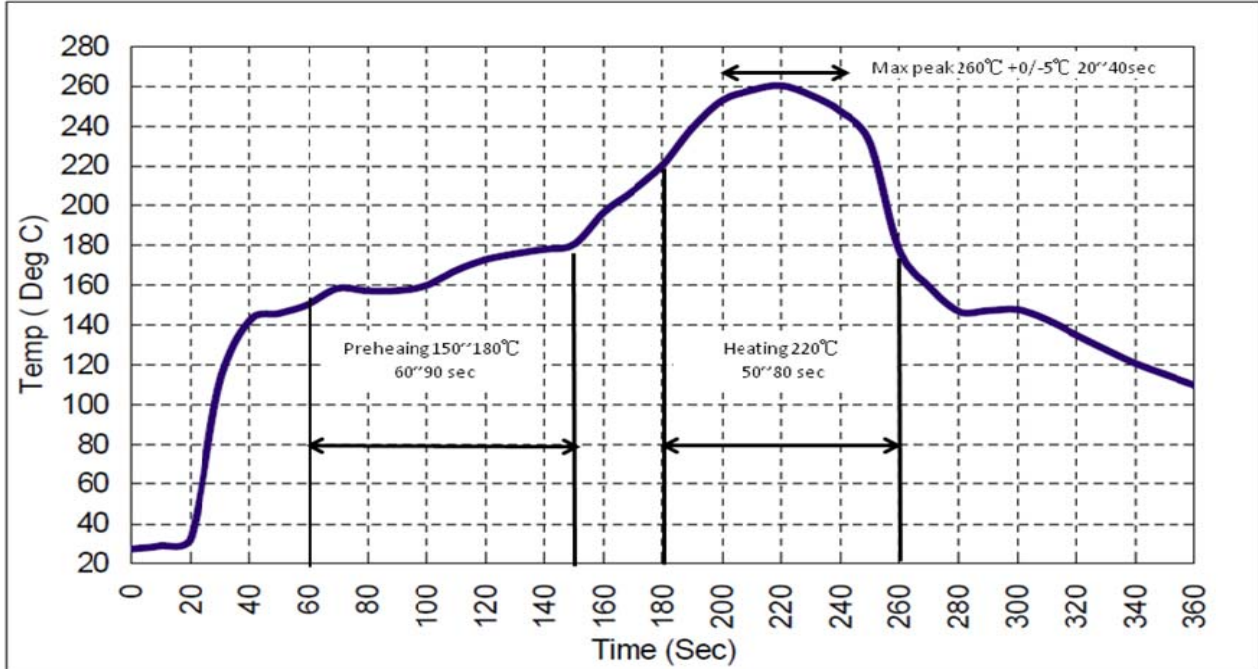


2. TAPE DIMENSION



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.



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. This component was always RoHS compliant from the first date of manufacture.