

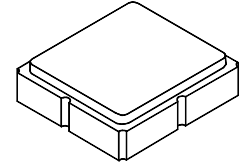
- SAW IF Filter, 243.95 MHz, 0.26 MHz Bandwidth
- 3.0 x 3.0 x 1.5 mm Surface-mount Case
- Input/Output Impedance 50  $\Omega$ /50 $\Omega$
- Complies with Directive 2002/95/EC (RoHS)

**MAXIMUM RATING:**

1. Input Power Level: +5dB<sub>m</sub>
2. Operating Temperature: -20°C to +85°C
3. Storage Temperature: -30°C to +85°C
4. Moisture Sensitivity Level: Level 1(MSL1)

**SF2335E-1**

**243.95 MHz  
SAW Filter**



SM3030-6

**ELECTRICAL CHARACTERISTICS:**

**A. ELECTRICAL CHARACTERISTICS:**

Parameters	Unit	Min.	Typical	Max.
Nominal Center frequency, Fo	MHz	-	243.95	-
Insertion Loss at Fo	dB	-	3.3	4.2
3 dB Bandwidth	KHz	260	457	-
Amplitude ripple, Fo $\pm$ 100 KHz	dB	-	0.70	1.2
Group delay ripple, Fo $\pm$ 100 KHz	$\mu$ sec	-	0.3	1.2
Attenuation(Reference level from 0dB )				
Fo $\pm$ 600 KHz	dB	29	35	-
Fo $\pm$ 10.7 MHz	dB	40	72	-
Fo $\pm$ 21.4 MHz	dB	60	70	-

**\*Fo is fixed frequency defined on 243.95MHz**



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

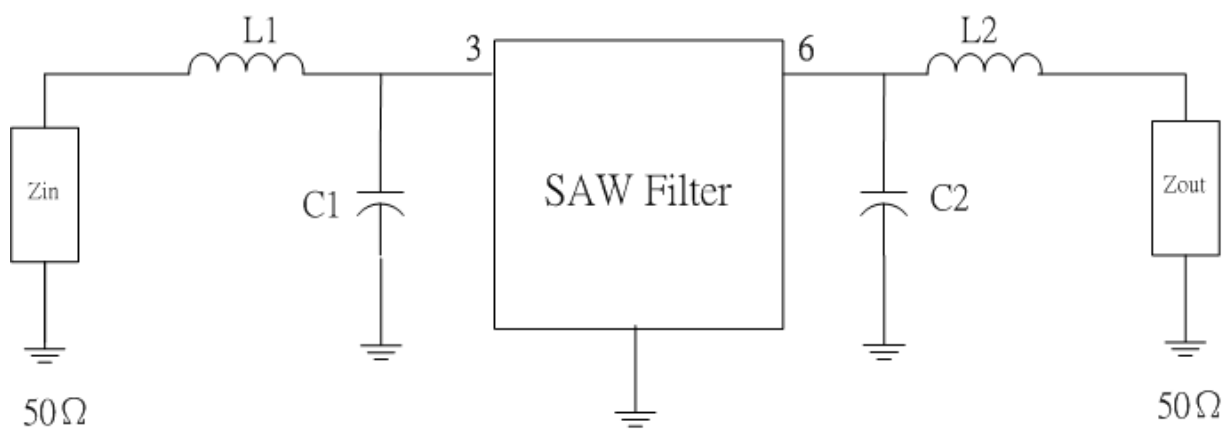
**NOTES:**

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.

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**MEASUREMENT CIRCUIT:**

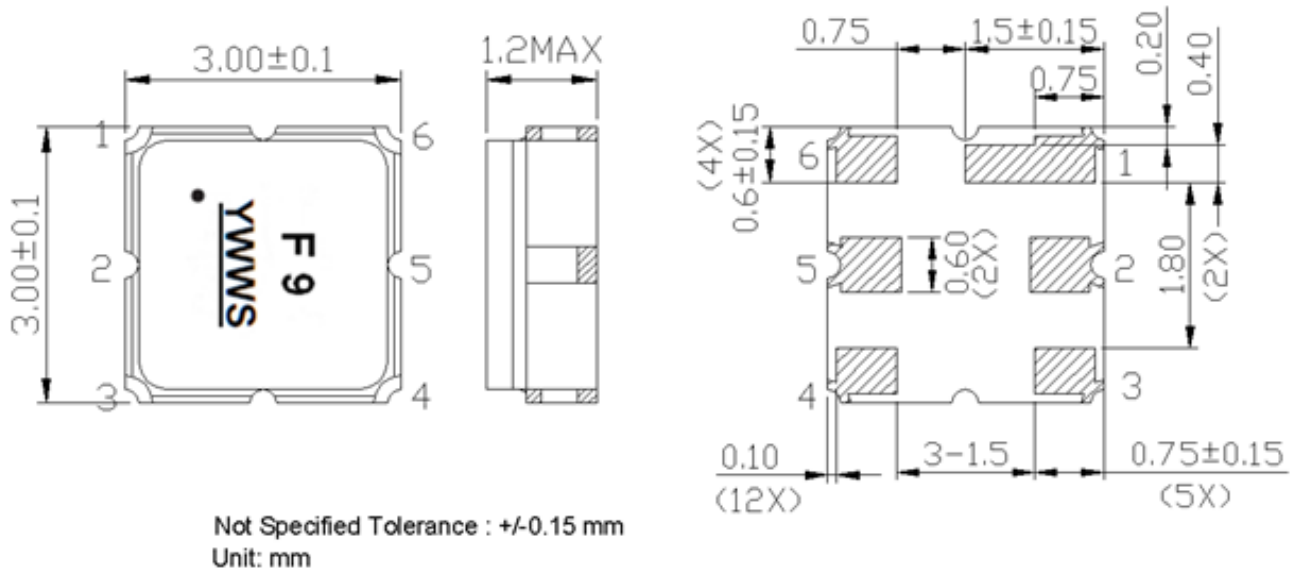
**Measurement Circuit**



$L1=100\text{nH}$   $L2=100\text{nH}$   $C1=2\text{pF}$   $C2=2\text{pF}$

**OUTLINE DRAWING:**

**6-Terminal Ceramic Surface-Mount Case  
3.0 X 3.0 mm Nominal Footprint**

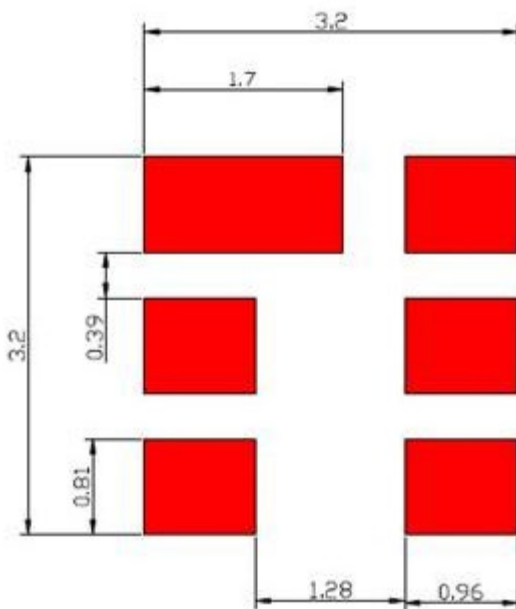


Y= Year  
WW = Week  
S = Shift

**Case Materials**

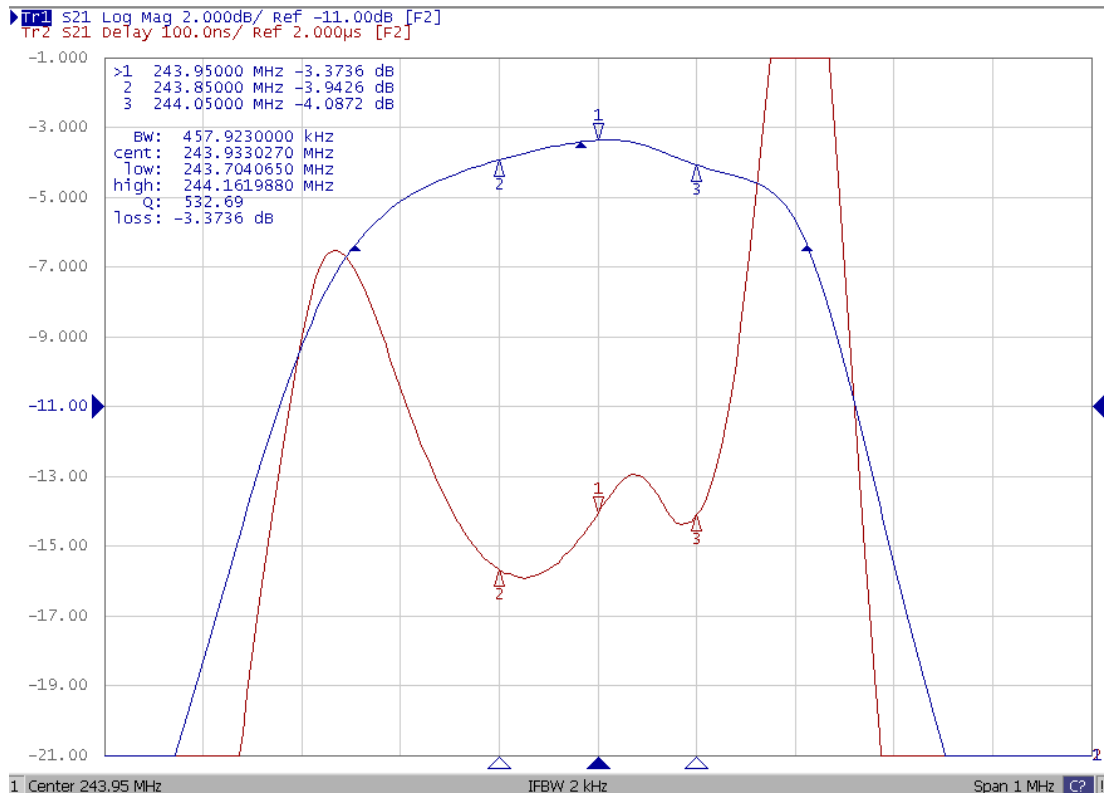
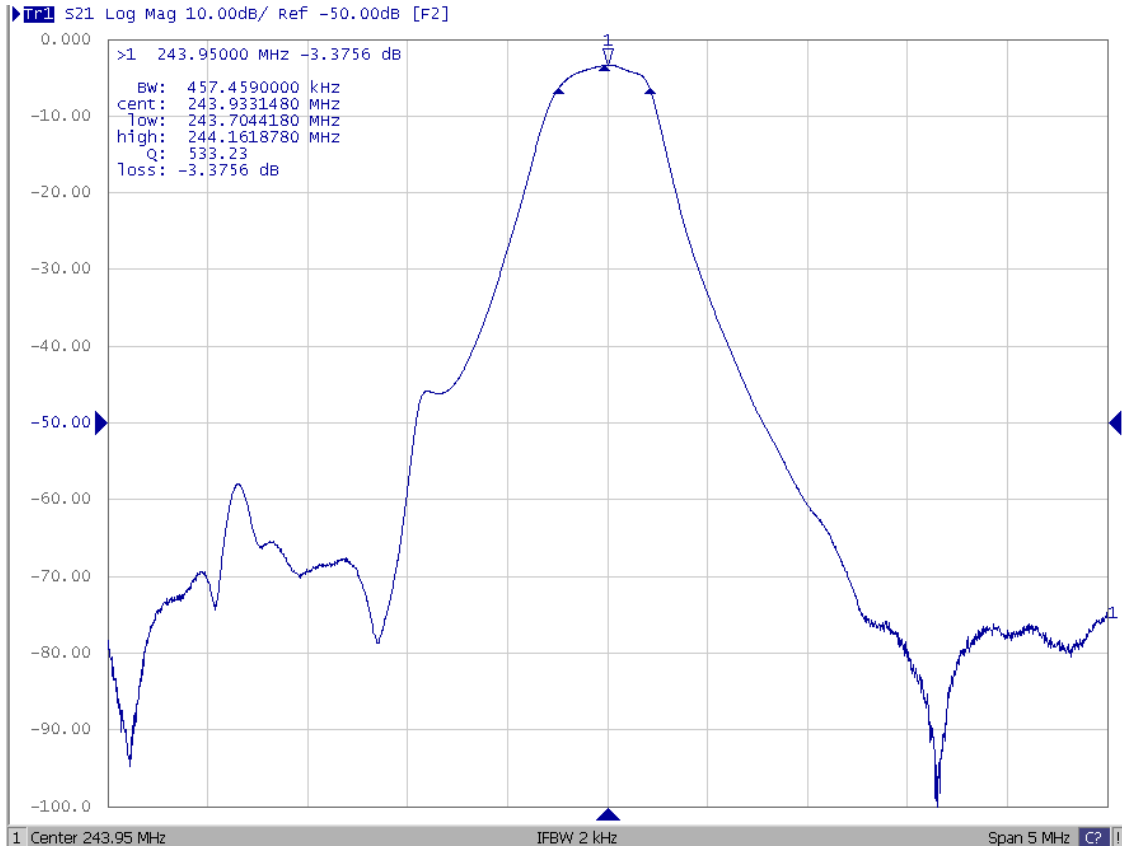
Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic
ROHS Compliance	

**PCB FOOTPRINT:**



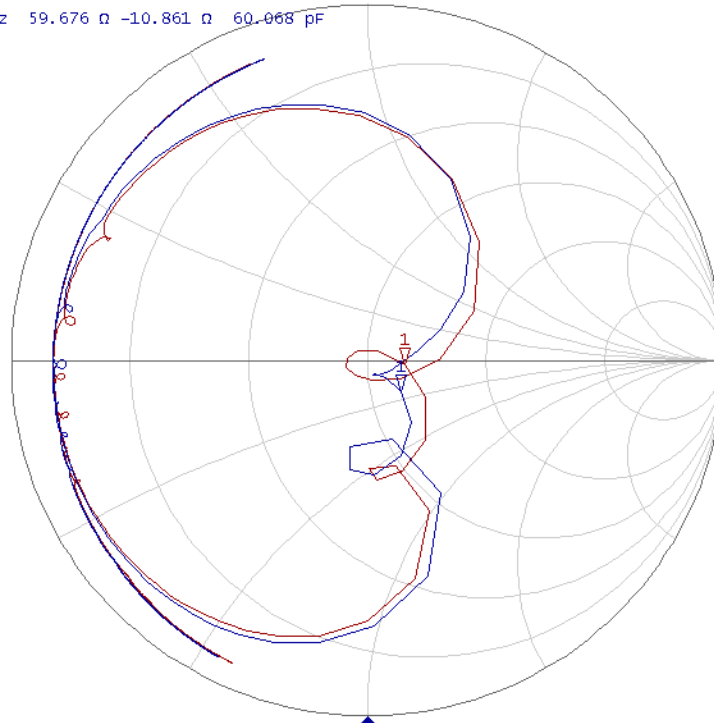
Pin no.	Connection
1	GND
2	GND
3	IN/OUT
4	GND
5	GND
6	OUT/IN

# FREQUENCY CHARACTERISTICS:



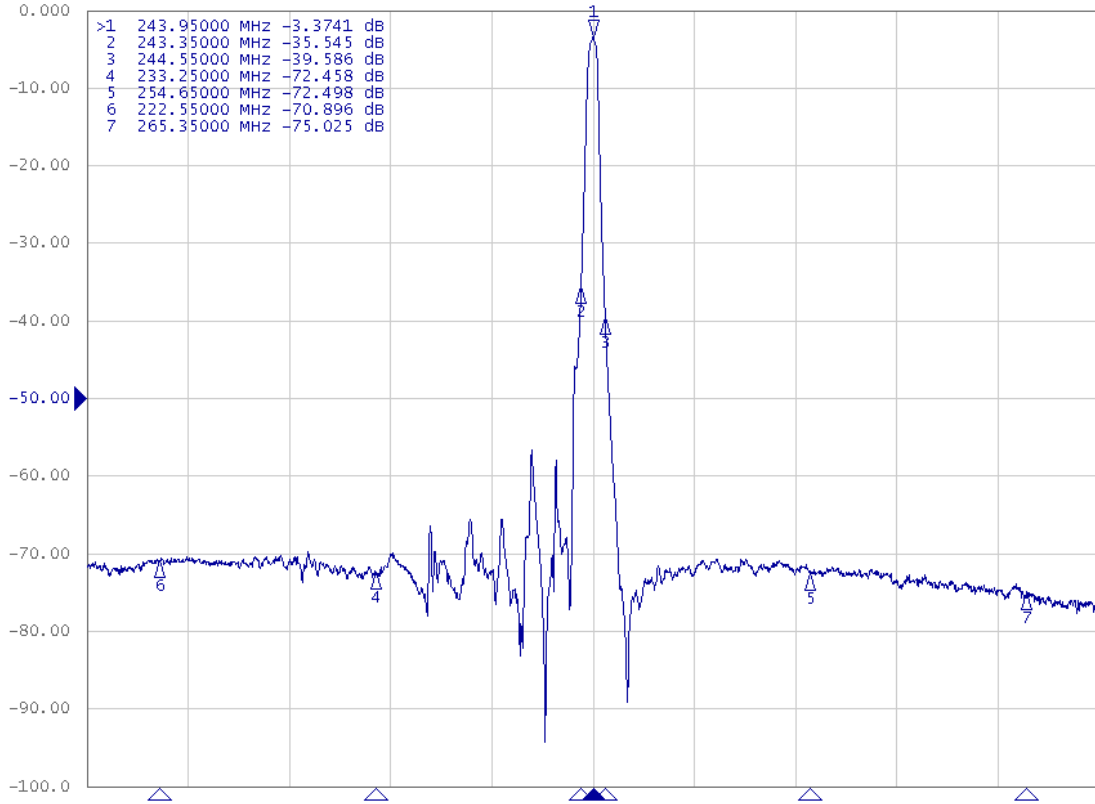
Tr1 S11 Smith (R+jX) Scale 1.000u [F2]  
Tr2 S22 Smith (R+jX) Scale 1.000u [F2]

>1 243.95000 MHz 59.676  $\Omega$  -10.861  $\Omega$  60.068 pF



1 Center 243.95 MHz IFBW 2 kHz Span 50 MHz Cor |

Tr1 S21 Log Mag 10.00dB/ Ref -50.00dB [F2]

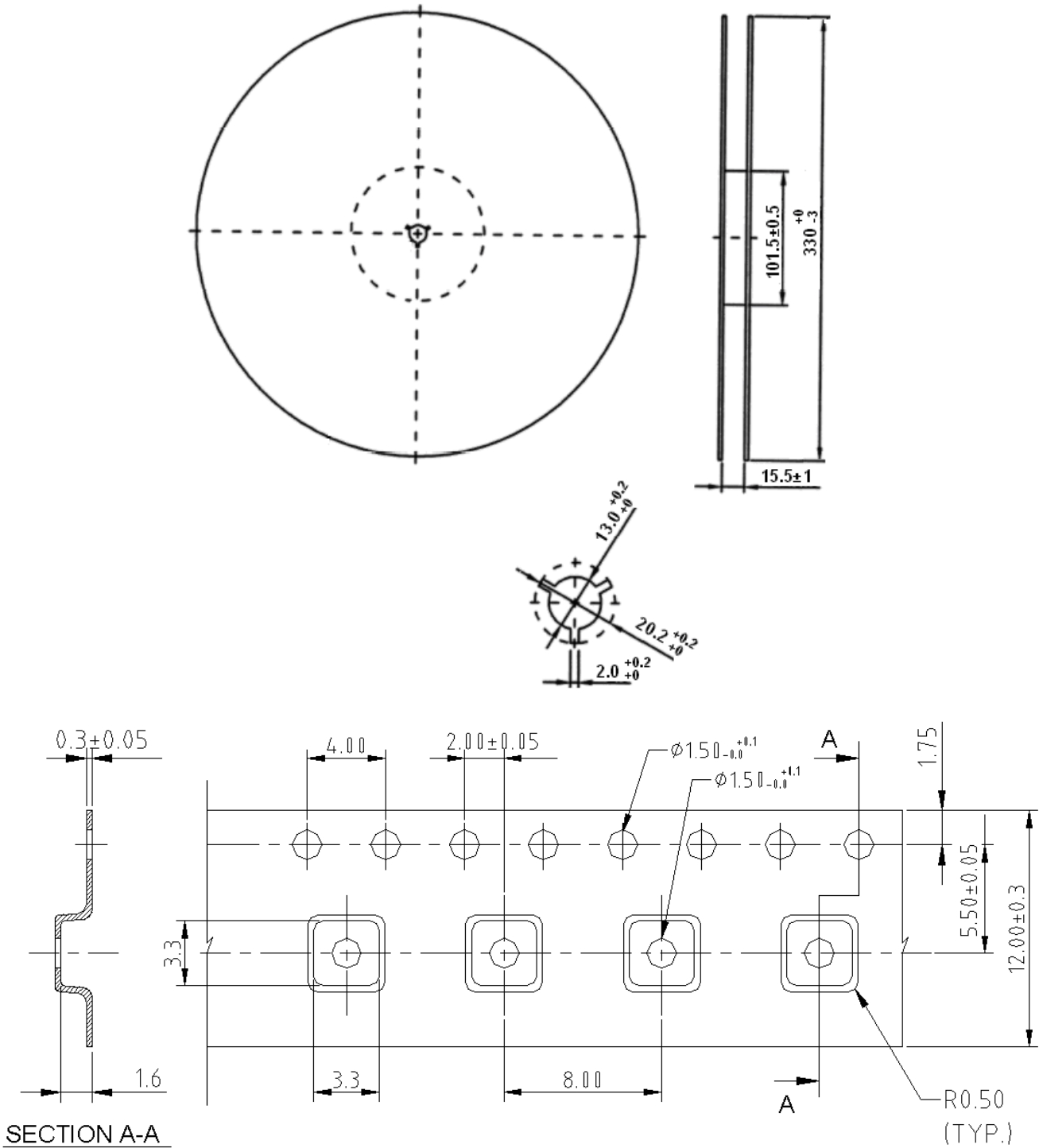


1 Center 243.95 MHz IFBW 2 kHz Span 50 MHz Cor |

# TAPE AND REEL SPECIFICATIONS

Reel Count  
7" = 500  
13" = 3000

Tape and Reel Standard per ANSI/EIA-481



## RECOMMENDED SOLDER 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 (10 seconds).
4. Time: 2 times maximum.

