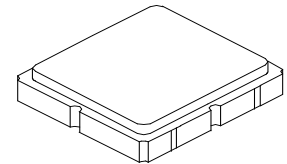


**SF2475E**

**1950 MHz  
SAW Filter**



**SM3030-6**

- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

**Absolute Maximum Ratings**

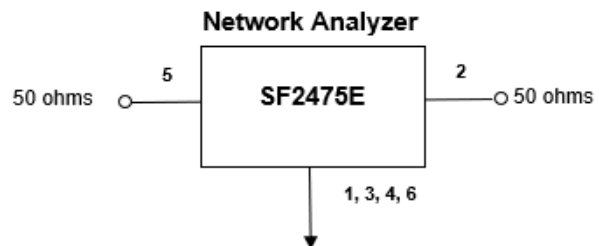
Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-30 to +105	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$			1950		MHz
Insertion Loss (1920 to 1980 MHz)	IL			3.2	5.0	dB
Return Loss (1920 to 1980 MHz)				11	8.0	
Amplitude Ripple (1920 to 1980 MHz; Any 5 MHz Within Passband)				1.4	3.0	dB
Phase Ripple (1920 to 1980 MHz)				360	360	deg
Absolute Delay				17	50	ns
Group Delay Ripple (1920 to 1980 MHz)				20	40	ns
Attenuation, reference level from 0 dB						dB
1805 to 1840 MHz			43	52		
1840 to 1880 MHz			35	39		
1880 to 1905 MHz			4	7		
2010 to 2110 MHz			10	20		
2110 to 2170 MHz			38	48		
2170 to 3500 MHz			35	37		
Case Style	SMD 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	C4, <u>YWWS</u>					
Nominal Impedance	50Ω					

**Electrical Connections**

Connection	Terminals
Input	2
Output	5
Ground	All Others

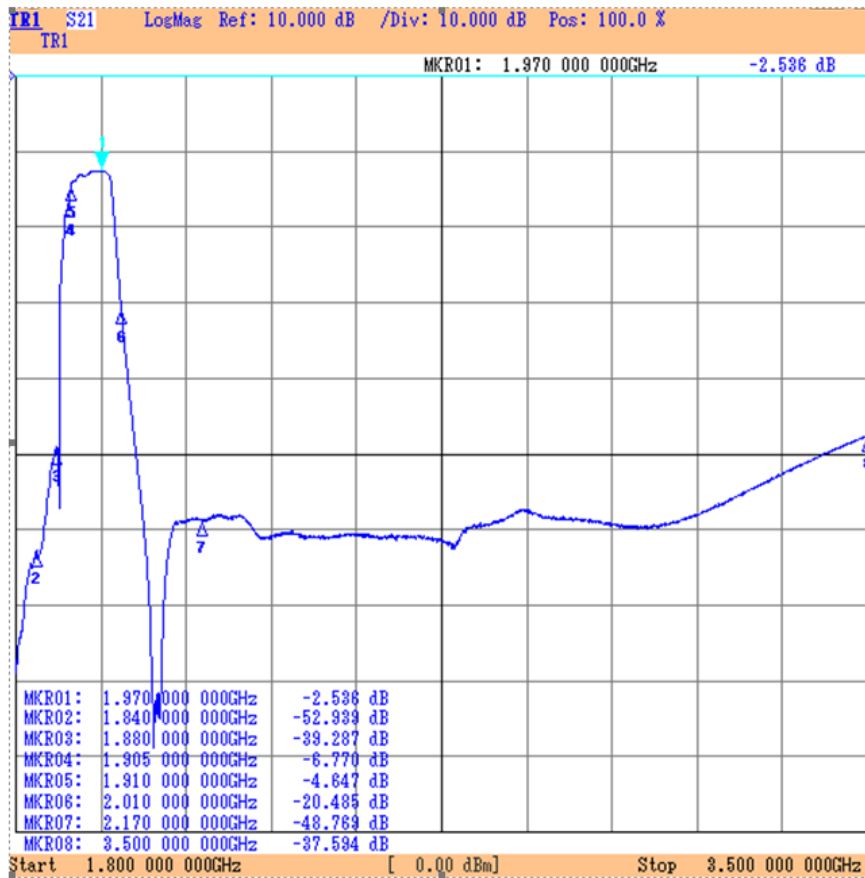


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

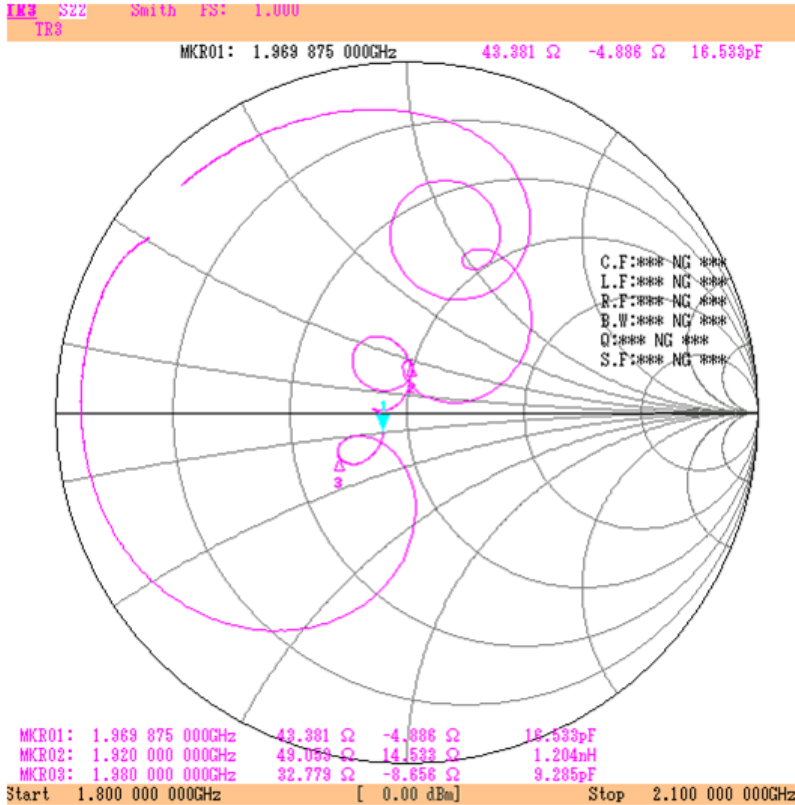
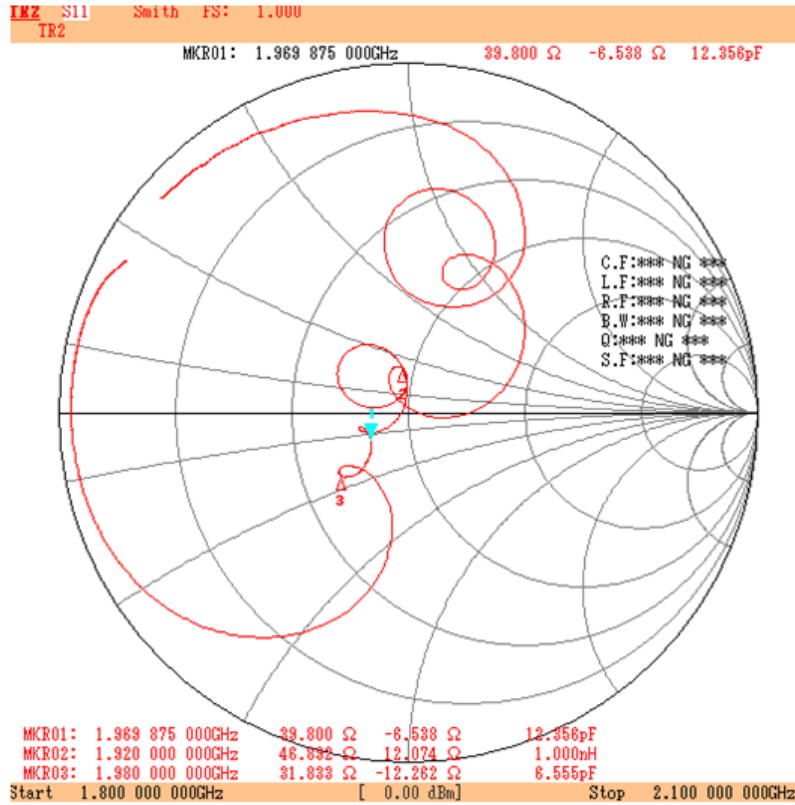
**NOTES:**

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 Characteristics:



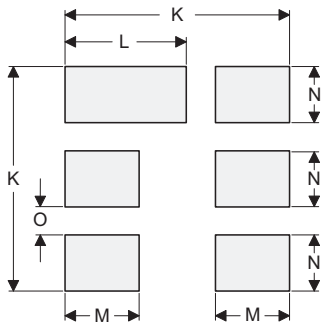
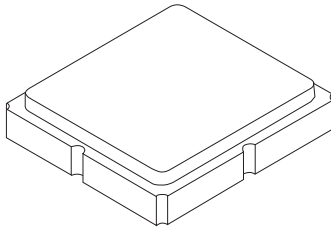
# Frequency Characteristics:



# SM3030-6 Ceramic 6-Terminal Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

## Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K	-	3.20	-	-	0.126	-
L	-	1.70	-	-	0.067	-
M	-	1.05	-	-	0.041	-
N	-	0.81	-	-	0.032	-
O	-	0.38	-	-	0.015	-
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030



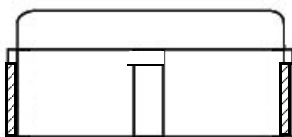
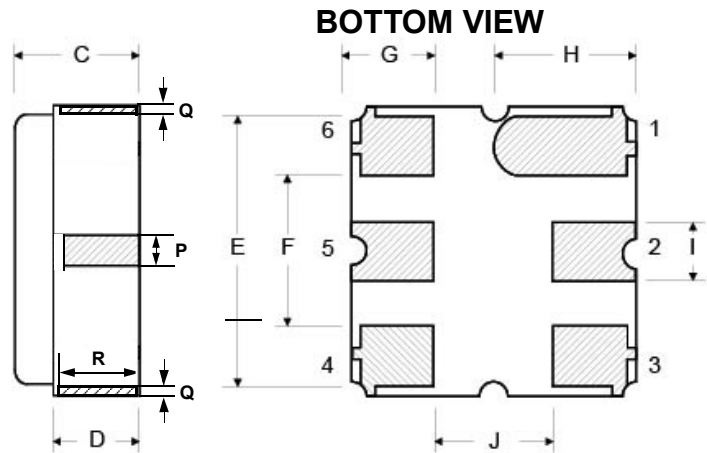
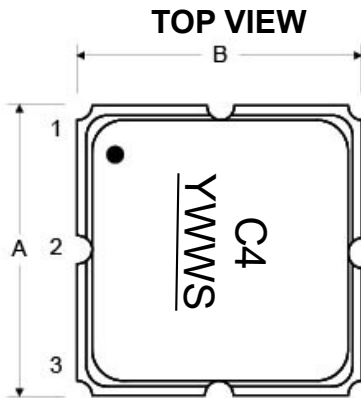
**PCB Footprint Top View**

## Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic

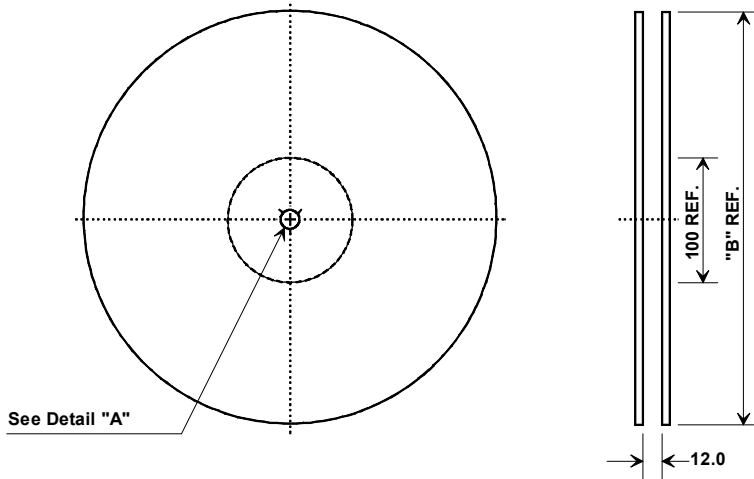
## Electrical Connections

Connection	Terminals
Input	2
Output	5
Case Ground	All others

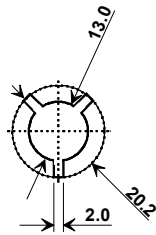


## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA481

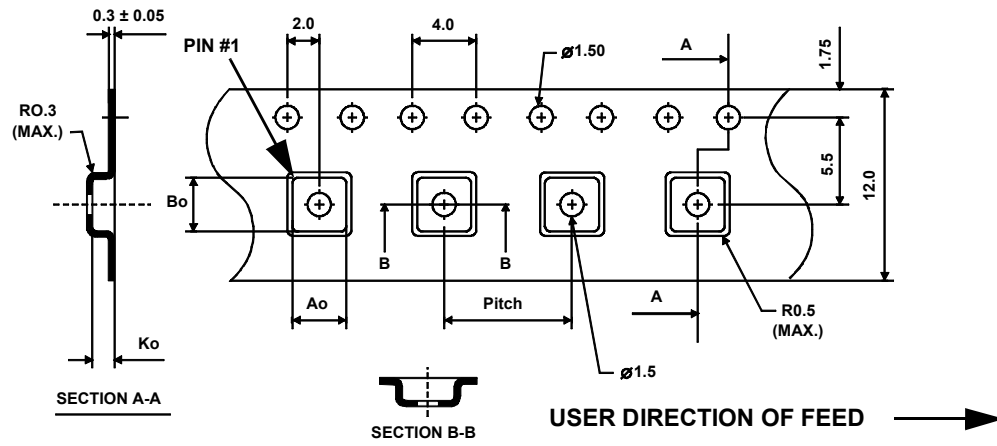


"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.3 mm
Bo	3.3 mm
Ko	1.4 mm
Pitch	8.0 mm
W	12.0 mm



## Recommended Reflow Profile

1. Preheating shall be fixed at 150~180° for 60~90 seconds.
2. Ascending time to preheating temperature 150° shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C peak (10 seconds.)
4. Time: 5 times maximum

