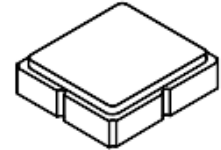


**SF2373E**

**1540 MHz  
SAW Filter**



**SM3030-8**

- Low-loss RF SAW Filter
- Miniature 3 x 3 mm SMD Package
- Balanced operation
- 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-grounded Terminal	3	V
Operating Temperature Range	-40 to +100	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 cycles/10 seconds maximum	265	°C

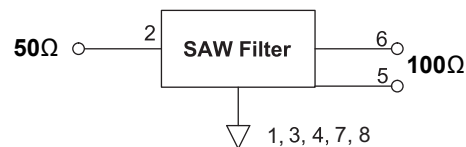
**Electrical Characteristics**

Characteristic - @25°C	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			1540		MHz
Insertion Loss, 1520 to 1560 MHz	IL				5.5	dB
Group Delay, 1520 to 1560 MHz					20	nS
Amplitude Ripple, 1520 to 1560 MHz				0.7	2.0	dB <sub>p,p</sub>
Return Loss 1520 to 1560 MHz			10			dB
Attenuation 0 dB Reference:						dB
<1000 MHz			-40			
1000 to 1500 MHz			-35			
1580 to 2480 MHz			-35			
2480 to 4860 MHz			-40			
4860 to 6000 MHz			-30			
>6000 MHz			-25			
Temperature Coefficient				-30		ppm/°C

Case Style	SM3030-8 3.0 x 3.0 mm Nominal Footprint	
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	6A, YWWS	
Standard Reel Quantity	Reel Size 7 inch	500 Pieces/Reel
	Reel Size 13 inch	3000 Pieces/Reel

**Electrical Connections**

Connection	Terminals
Input	2 - 50 Ω
Output	5, 6 - 100 Ω differential
Case Ground	All others

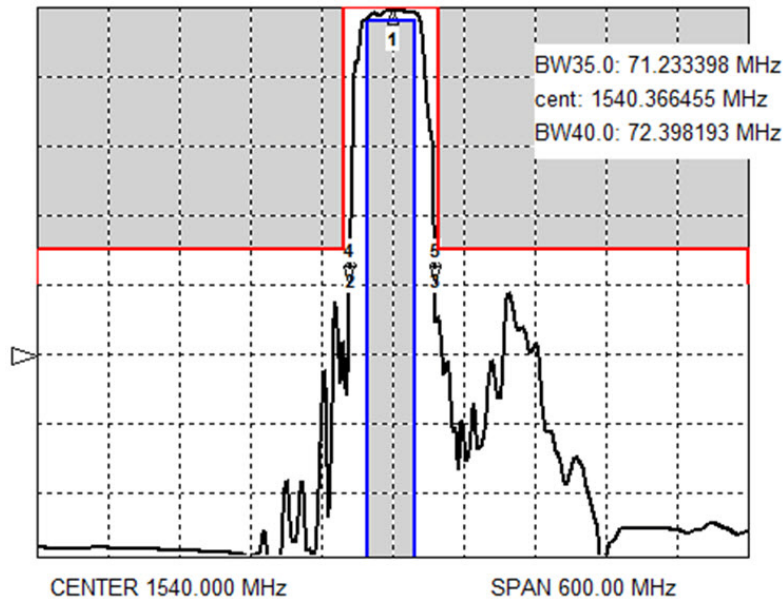


 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**  
**NOTES:**

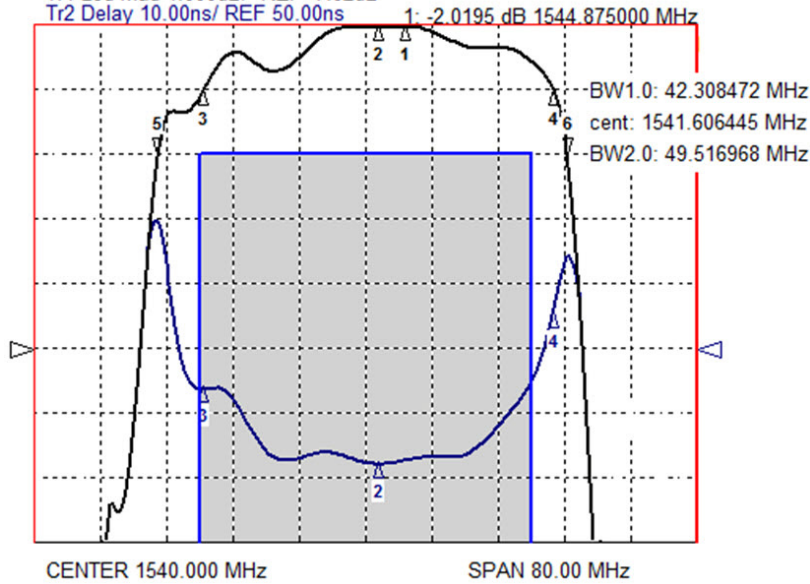
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

# Filter Response Plots

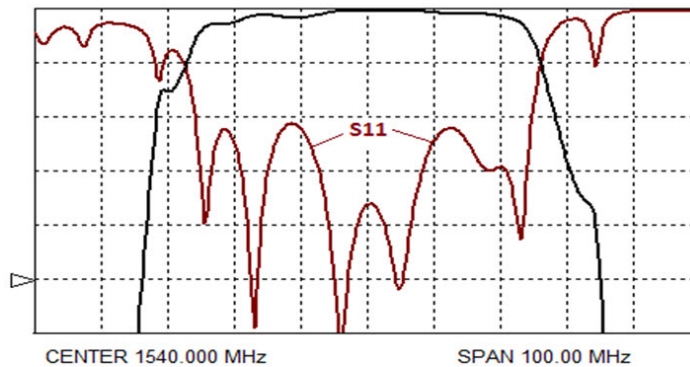
Tr1 Log Mag 10.000dB/ REF -52.04dB



Tr1 Log Mag 1.000dB/ REF -7.02dB  
Tr2 Delay 10.00ns/ REF 50.00ns

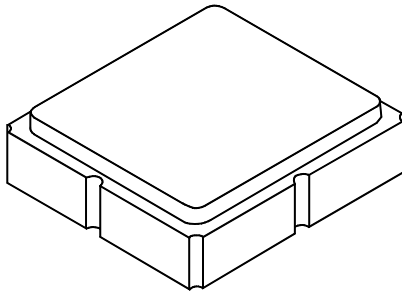


Log Mag 5.000dB/ REF -27.02dB

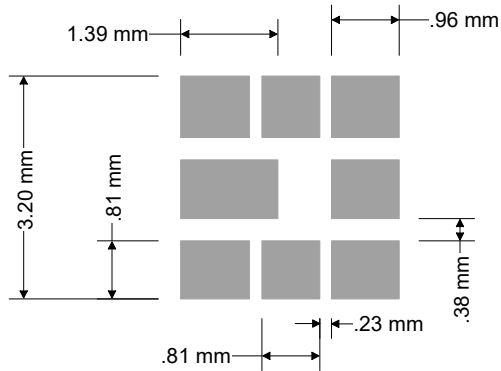


# SM3030-8 Case

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



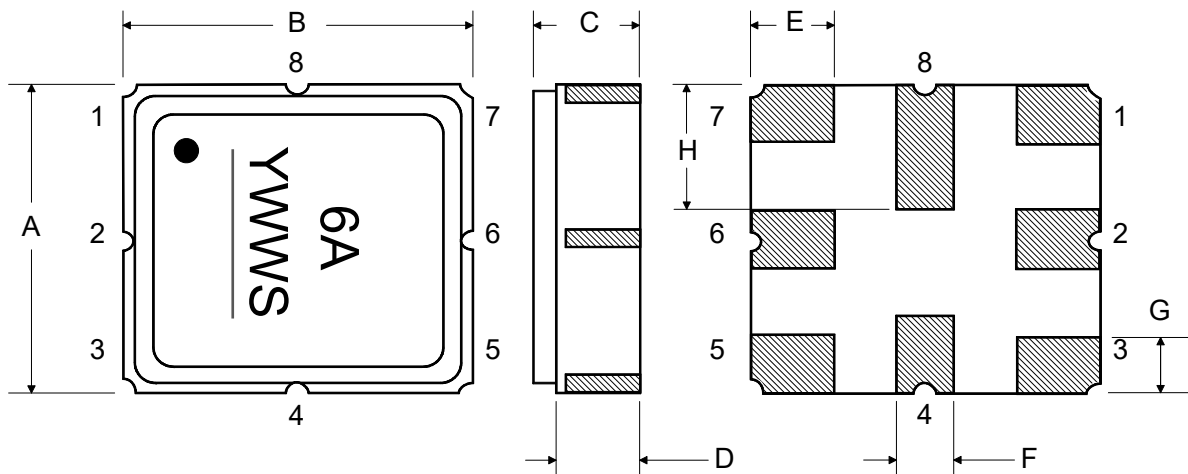
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.0	3.13	0.113	0.118	0.123
B	2.87	3.0	3.13	0.113	0.118	0.123
C	1.14	1.27	1.40	0.045	0.050	0.055
D	0.79	0.92	1.05	0.031	0.036	0.041
E	0.62	0.75	0.88	0.024	0.029	0.034
F	0.47	0.60	0.73	0.018	0.024	0.029
G	0.47	0.60	0.73	0.018	0.024	0.029
H	1.07	1.20	1.33	0.042	0.047	0.052



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

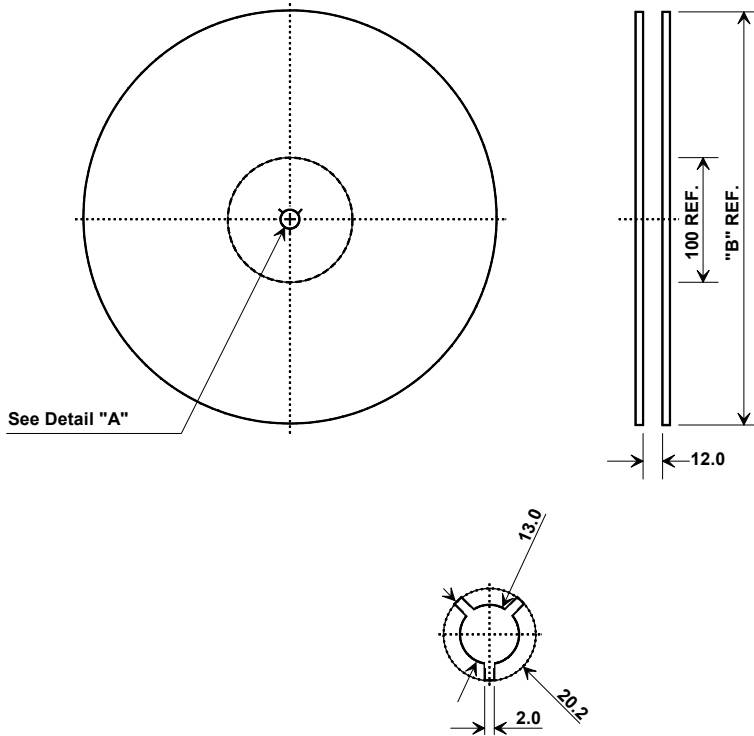
TOP VIEW

BOTTOM VIEW



## Tape and Reel Specifications

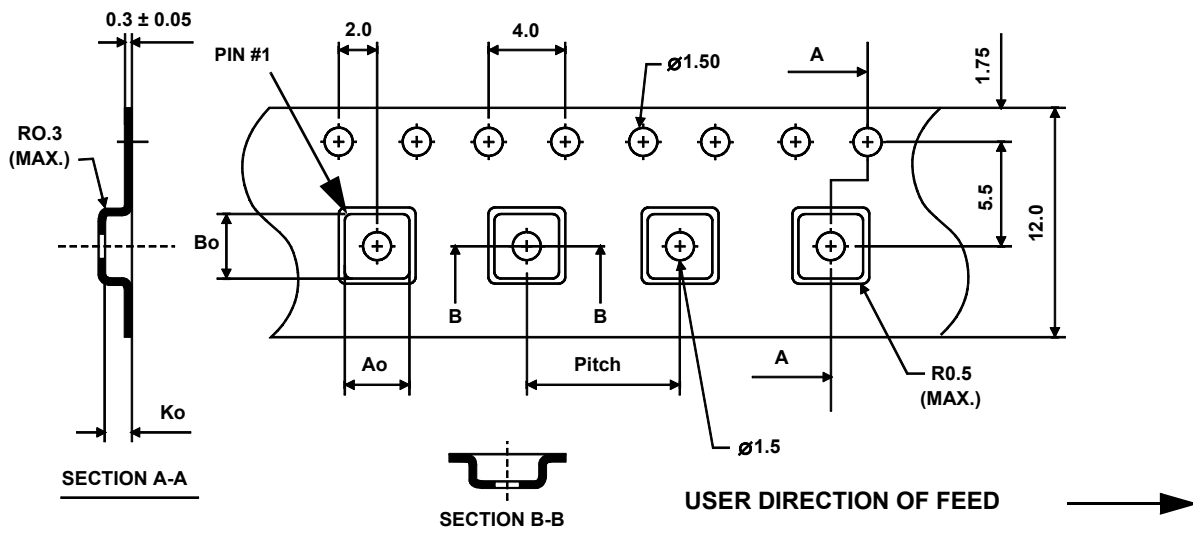
Tape and Reel Standard per ANSI/EIA-481



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

### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.5 mm
Bo	3.5 mm
Ko	1.40 mm
Pitch	8.0 mm
W	12.0 mm



## 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 (10 seconds).
4. Time: 5 times maximum.

