

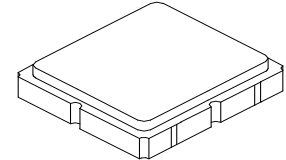
- Surface Mount 3.8 x 3.8 mm Package
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

**Absolute Maximum Ratings**

Rating	Value	Units
Input Power Level	10	dBm
DC Voltage on any Non-ground Terminal	3	V
Operating Temperature Range	-10 to +60	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C

**SF2392D**

**448 MHz  
SAW Filter**



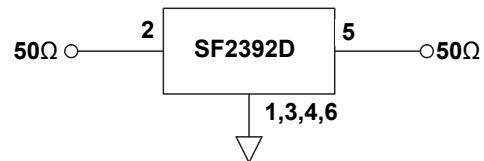
SM3838-6

**Electrical Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_c$			448		MHz
Insertion Loss, ( $f_c \pm 2$ MHz)	IL			1.8	4.0	dB
Amplitude Ripple, ( $f_c \pm 2$ MHz)				0.5	2.0	
Attenuation, Referenced from 0 dB:						
Fc-44.3 to Fc-41.3 MHz			45	55		dB
Fc-41.3 to Fc-44.3 MHz			45	53		
Temperature coefficient of frequency				-36		Ppm/°C
Case Style	SM3838-6 3.8 x 3.8 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	B33, YWWS					

**Electrical Connections**

Connection	Terminals
Input	2
Output	5
Case Ground	All others

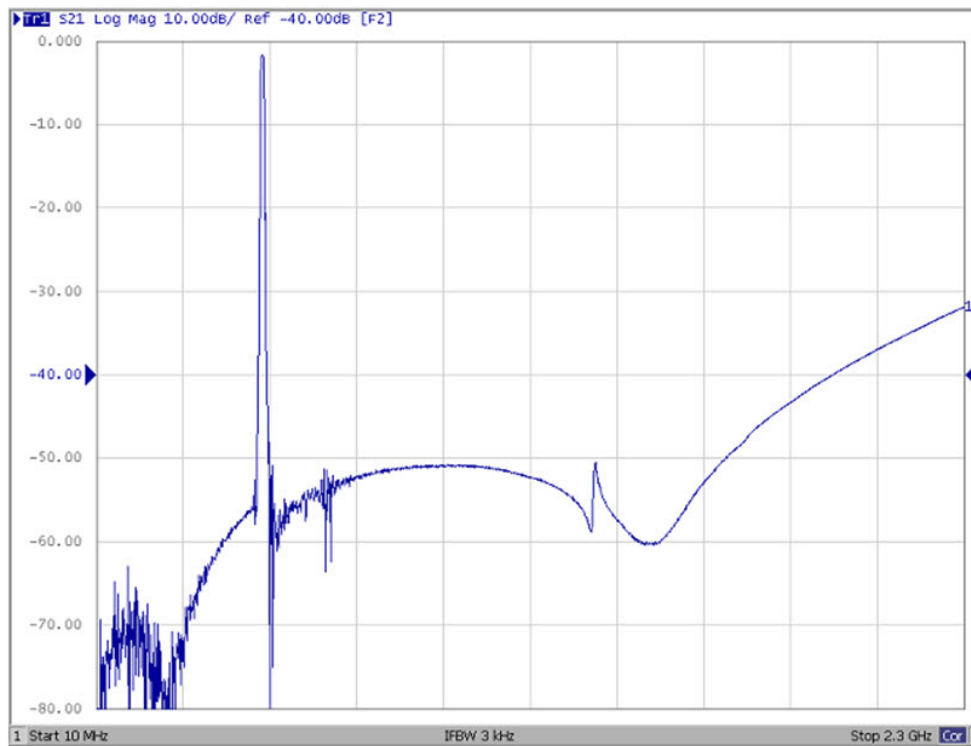
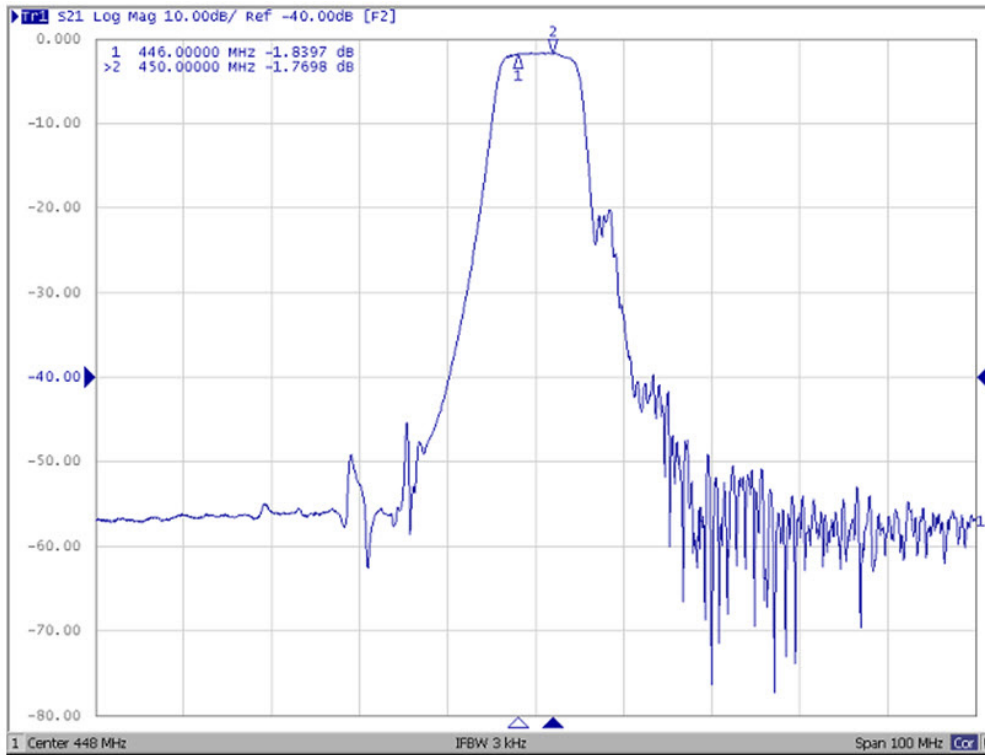


 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

**NOTES:**

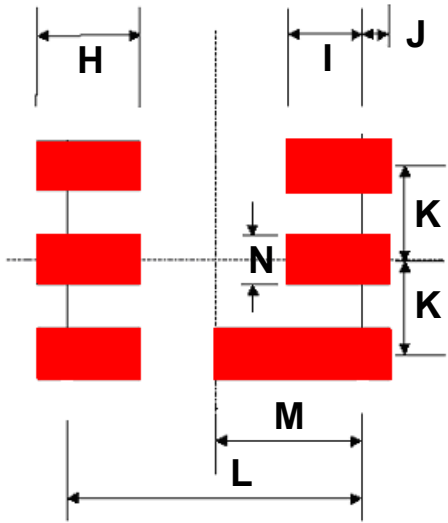
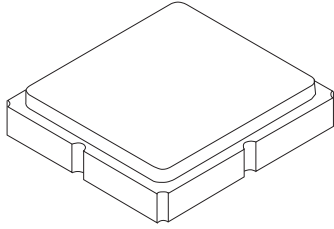
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

# Frequency Characteristics



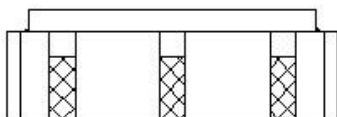
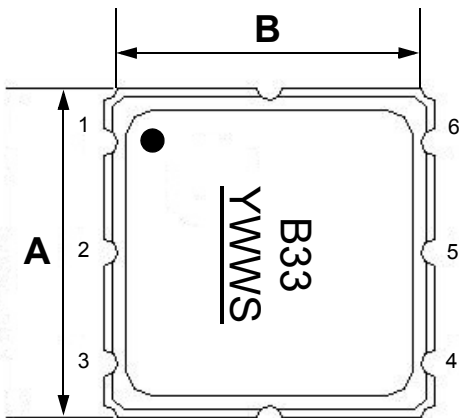
# SM3838-6 Case

## 6-Terminal Ceramic Surface-Mount Case 3.8 X 3.8 mm Nominal Footprint



PCB Footprint

TOP VIEW



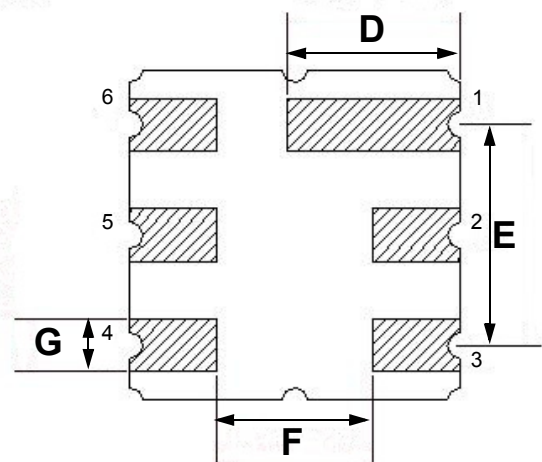
### Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.70	3.80	4.00	0.145	0.149	0.157
B	3.70	3.80	4.00	0.145	0.149	0.049
C	-	1.07	1.25	-	0.042	0.054
D	-	2.00	-	-	0.078	-
E	-	2.54	-	-	0.100	-
F	-	1.80	-	-	0.070	-
G	-	0.60	-	-	0.023	-
H	-	1.40	-	-	0.055	-
I	-	1.00	-	-	0.039	-
J	-	0.40	-	-	0.015	-
K	-	1.27	-	-	0.050	-
L	-	3.80	-	-	0.149	-
M	-	1.90	-	-	0.074	-
N	-	0.70	-	-	0.027	-

### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu$ m Gold over 1.27 to 8.89 $\mu$ m Nickel
Lid Plating	2.0 to 3.0 $\mu$ m Nickel
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic

BOTTOM VIEW



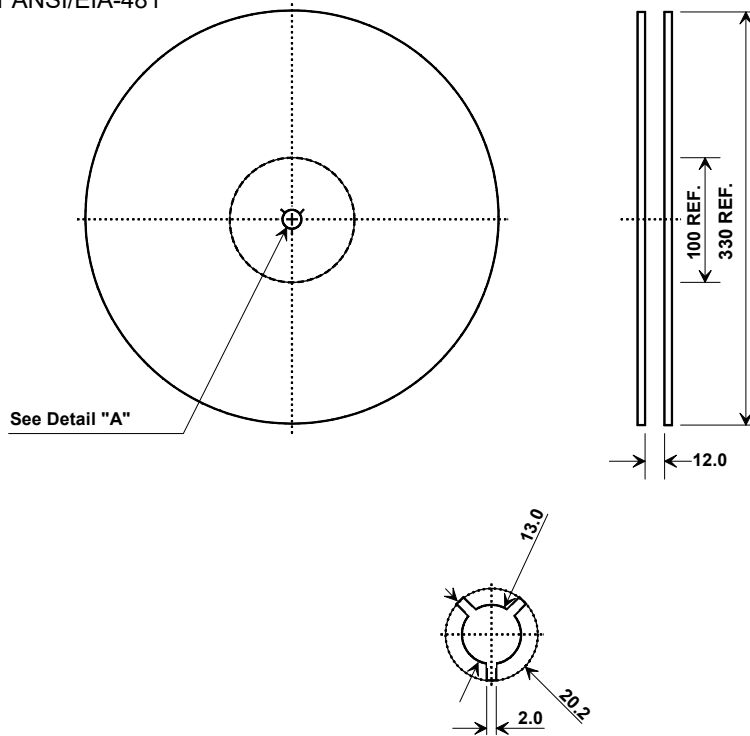
## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

Reel Count:

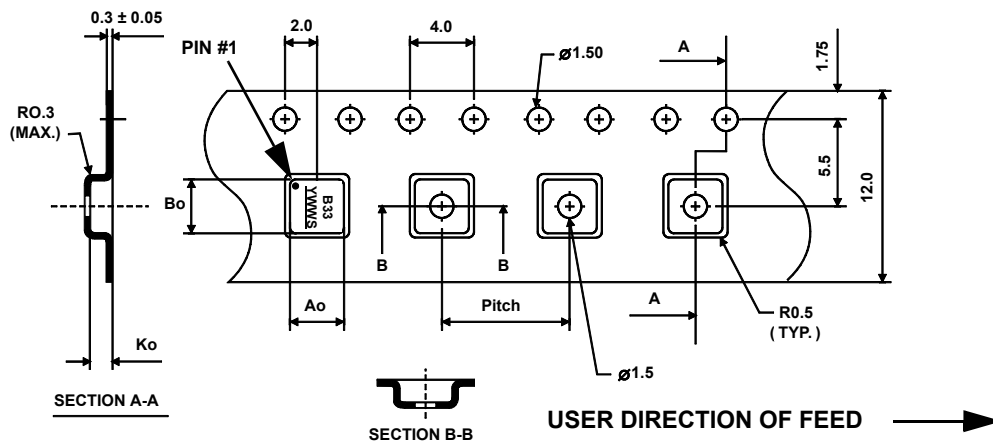
7" = 500

13" = 2000



### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 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.

