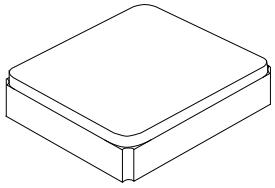
AEC-Q200
This component was always RoHS compliant from the first date of manufacture.

SF2259H

921.5 MHz SAW Filter

- ***RF SAW Filter, 921.5 MHz, 13 MHz Bandwidth***
- ***2.0 x 1.6 x 0.9 mm Surface-mount Case***
- ***Input/Output Impedance 50Ω/50Ω***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Complies with AEC-Q200 Qualification Testing***



SM2016-4

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+15	dBm
Maximum DC Voltage on any Non-ground Terminal	3	VDC
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Maximum Soldering Profile, 5 Cycles	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			921.5		MHz
Maximum Insertion Loss, 915 - 928 MHz	IL_{MAX}			2.0	3.0	dB
Amplitude Ripple, p-p, 915 - 928 MHz				0.3	1.0	
Return Loss, 915 - 928 MHz			10	12		
Group Delay Ripple, 915 - 928 MHz				15	50	ns
Attenuation, Referenced to 0 dB:						dB
10 to 857.5 MHz			40	52		
857.5 to 895 MHz			22	45		
970 to 1005 MHz			35	40		
1005 to 1110 MHz			40	56		
1110 to 3000 MHz			30	39		
Terminating Source impedance	Z_S			50		Ω
Terminating Load impedance	Z_L			50		Ω

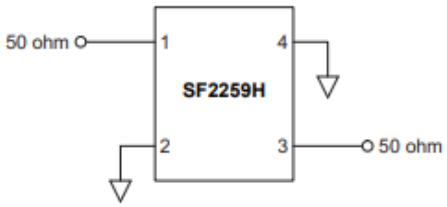
Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms
Case Style	SM2016-4
Lid Symbolization	3W

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

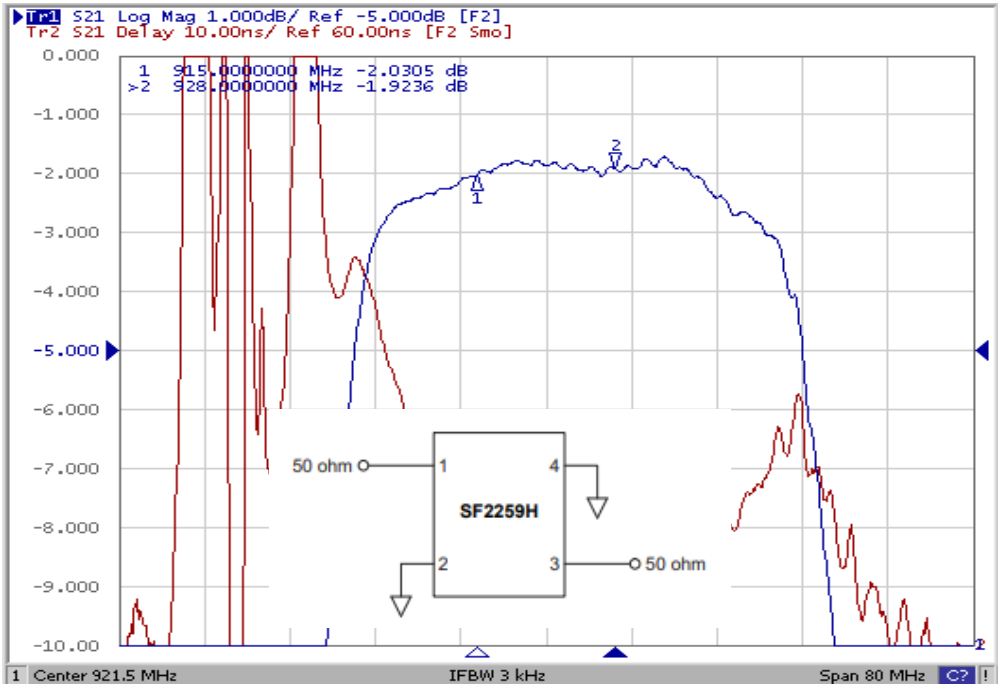
NOTES:

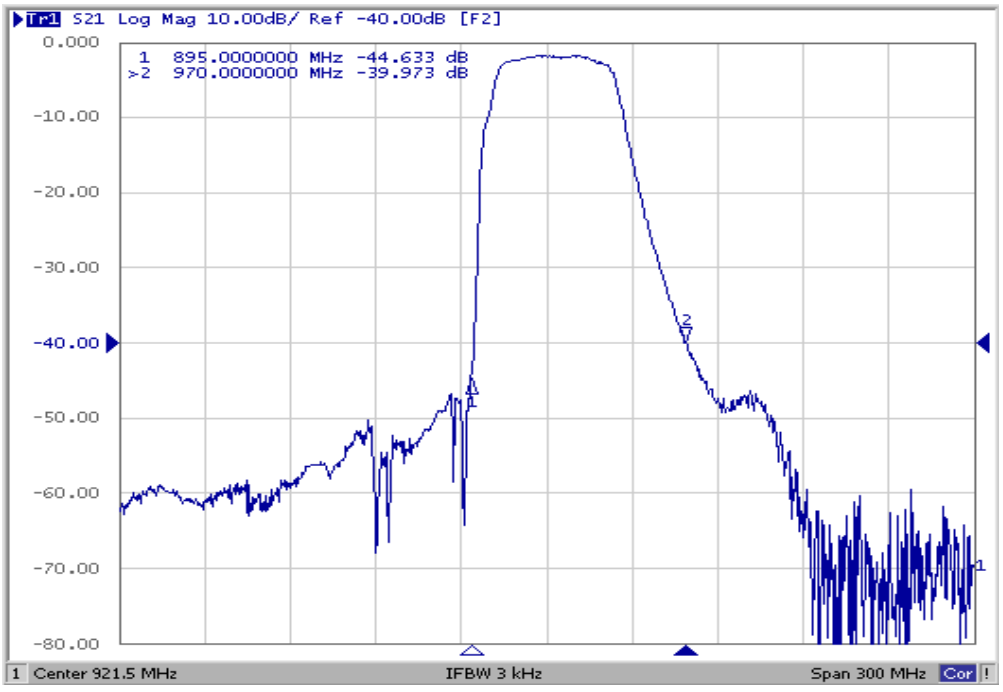
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

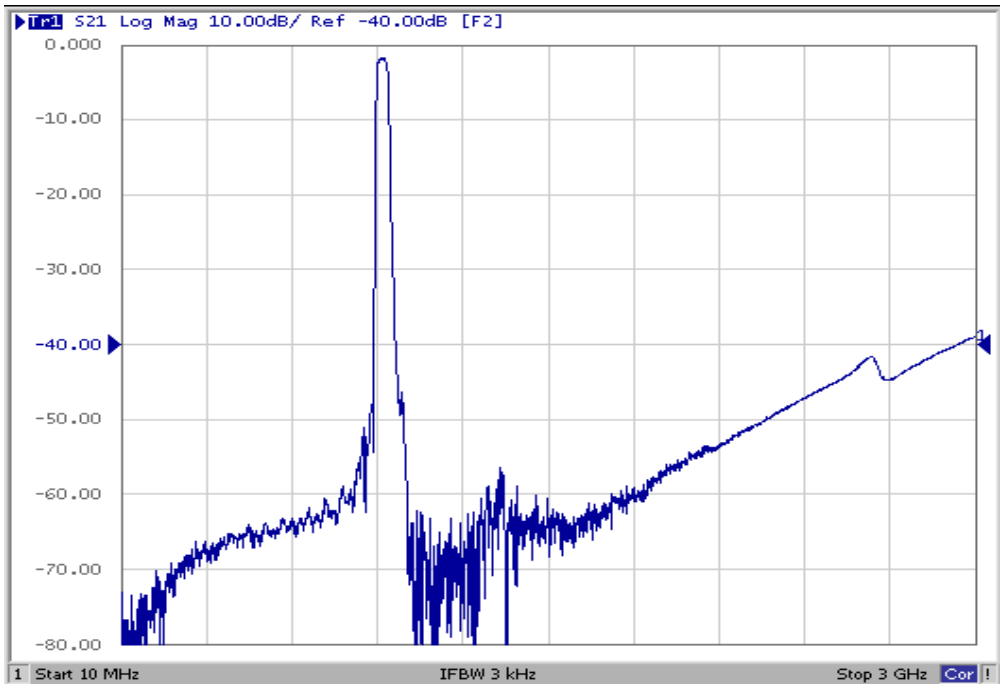
Matching Circuit



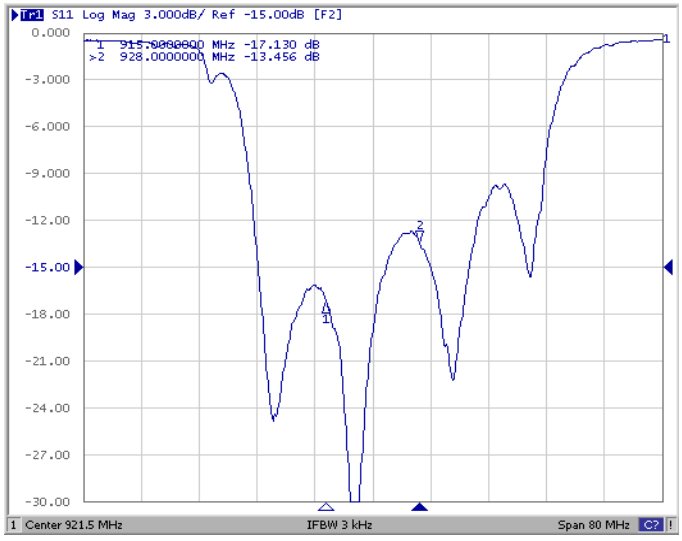
Frequency Response Plots

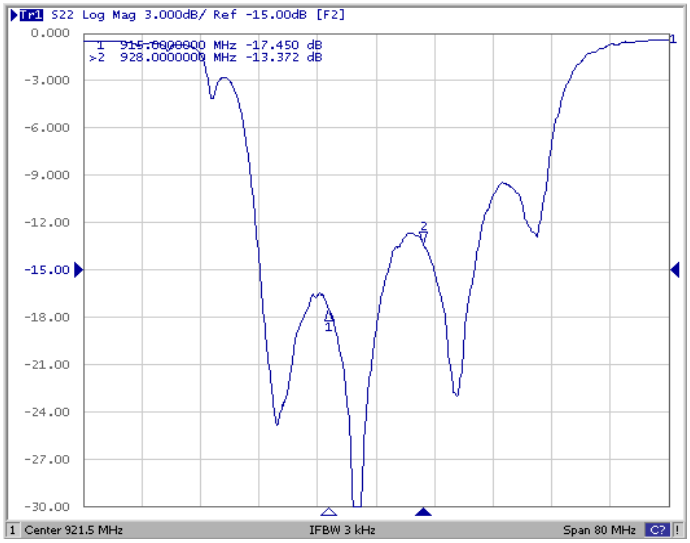






Return Loss Plots

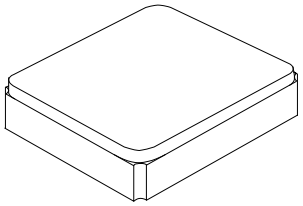




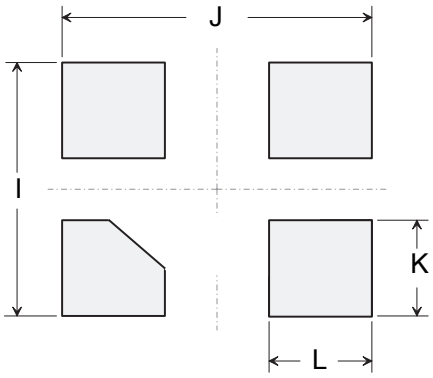
SM2016-4 Case

4-Terminal Ceramic Surface-Mount Case

2.0 X 1.6 mm Nominal Footprint



PCB PAD LAYOUT

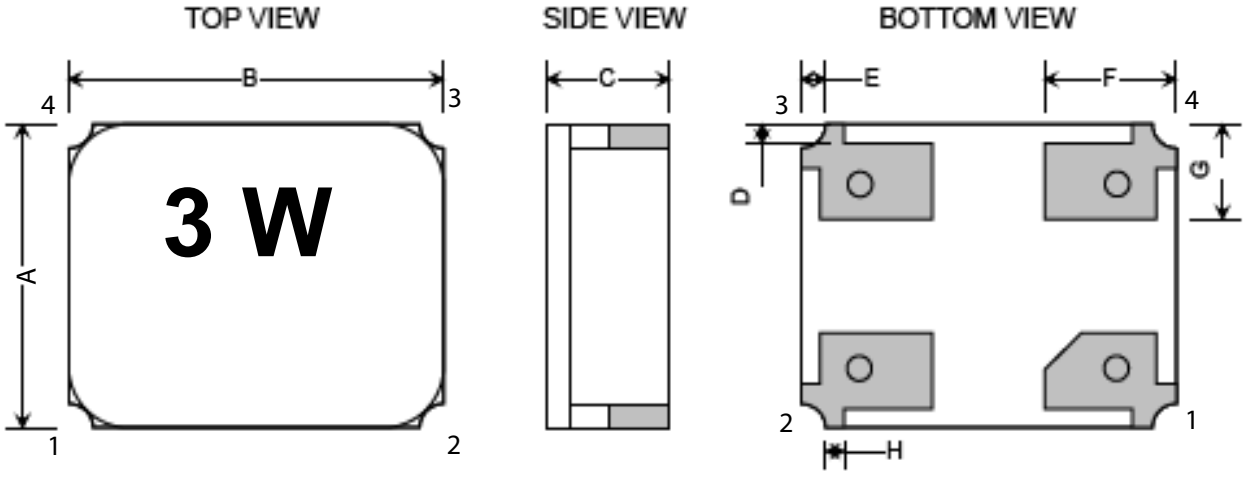


Dimensions in mm
All pads have the same dimensions

Case Dimensions

Dimension	mm		
	Min	Nom	Max
A	1.57	1.60	1.73
B	1.97	2.00	2.13
C	0.55	0.65	0.75
D	-	0.10	-
E	-	0.10	-
F	-	0.70	-
G	-	0.50	-
H	-	0.10	-
I	-	1.80	-
J	-	2.20	-
K	-	0.60	-
L	-	0.80	-

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_2O_3 Ceramic
Pb Free	

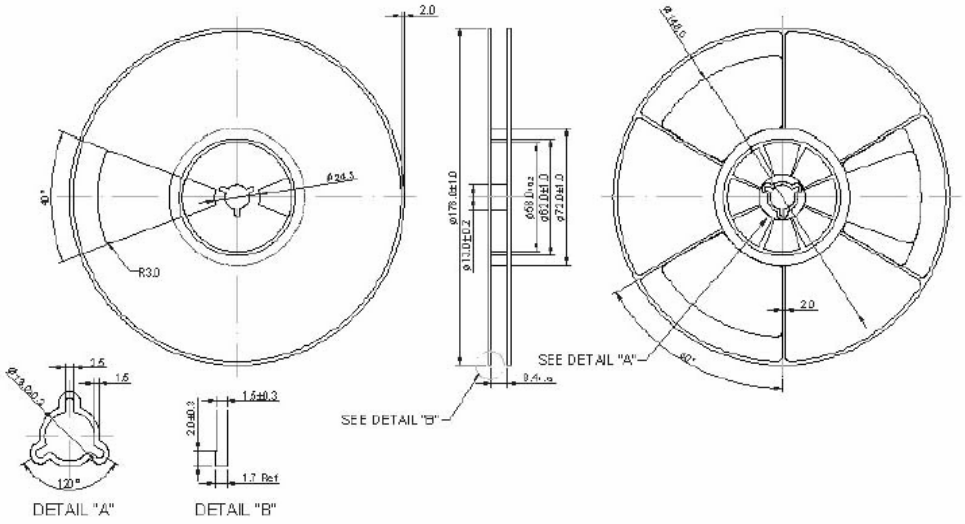


Tape and Reel Standard per ANSI/EIA-481

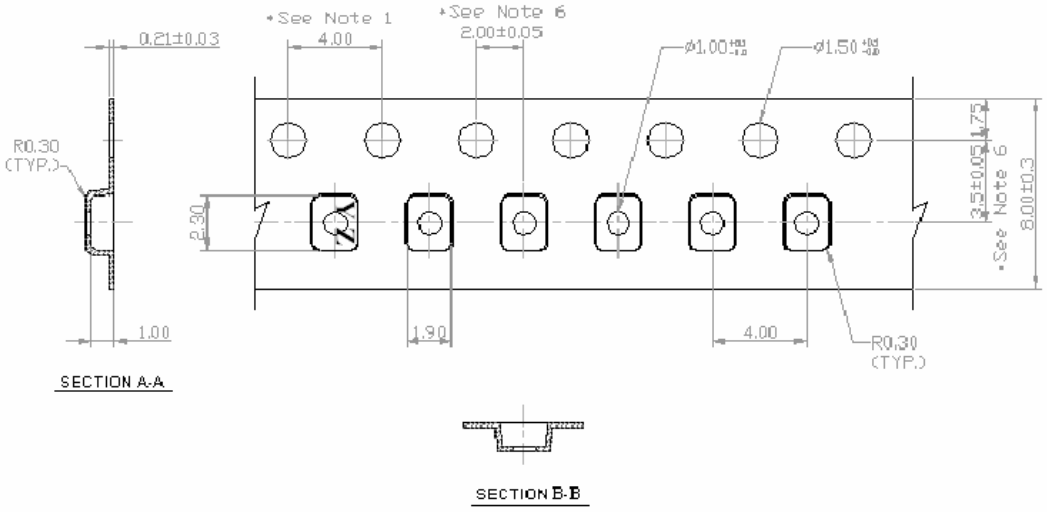
F. PACKING:

1. REEL DIMENSION

(Reel Count : 7"=2000 typ. ; 13"=10000 typ.)

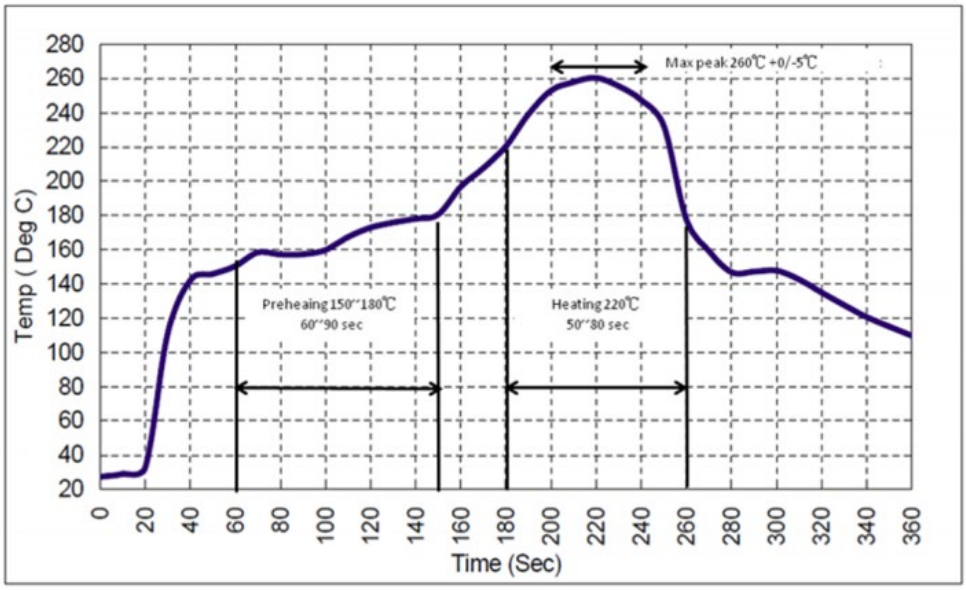


2. TAPE DIMENSION



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.



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