SF-043308-S39

ISM-Band, RF SAW Filter
Revision 0: March 2017

RoHS compliance
Pb free

- ❒ Electrical Characteristics
- ❒ Package Dimensions
- ❒ Testing Environment
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❒ Electrical Characteristics

Maximum Ratings

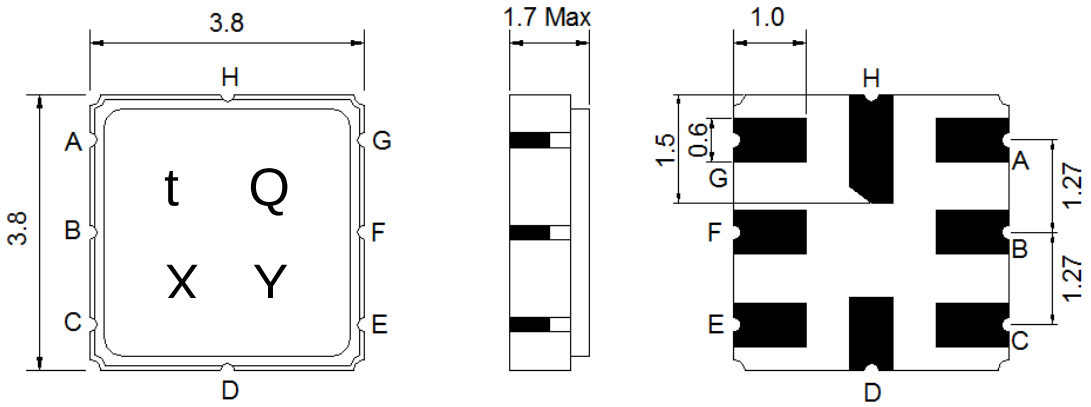
Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	-	+105
Storage Temperature Range	°C	-40	-	+105
Maximum DC Voltage	V	-	-	0
Maximum Input Power	dBm	-	-	13
Source Impedance (unbalanced)(1)	Ω	-	50	-
Load Impedance (unbalanced)(1)	Ω	-	50	-
Package type & size	S39			
Length x Width	-	-	3.8 x 3.8	-
Height	mm	-	-	1.7

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency Fc	MHz	-	433.92	-
Minimum Insertion Loss α_{min}				
Incl. Loss in matching elements (433.385 ~ 434.455MHz)	dB	-	3.0	3.5
Excl. Loss in matching elements (433.385 ~ 434.455 MHz)	dB	-	2.0	2.5
Pass Band (Relative to α_{min})				
433.385 ~ 434.455 MHz [1)]	-	-	1.3	2.8
433.37 ~ 434.47 MHz [2)]	-	-	1.5	3.3
Relative Attenuation (Relative to α_{min}) α_{rel}				
10.0 ~ 350.0 MHz	dB	50	55	-
350.0 ~ 414.0 MHz	dB	30	35	-
414.0 ~ 425.0 MHz	dB	30	35	-
425.0 ~ 432.52 MHz	dB	13	17	-
435.92 ~ 436.8 MHz	dB	13	17	-
436.8 ~ 438.0 MHz	dB	22	27	-
438.0 ~ 330.0 MHz	dB	25	30	-
330.0 ~ 446.0 MHz	dB	25	30	-
446.0 ~ 455.0 MHz	dB	25	30	-
455.0 ~ 480.0 MHz	dB	28	33	-
480.0 ~ 800.0 MHz	dB	40	45	-
800.0 ~ 1700.0 MHz	dB	52	57	-
1700.0 ~ 2500.0 MHz	dB	42	47	-

Notes : (1)With Matching Network (Ref. Testing Environment Circuit as shown below).
1) 433.385 ... 434.40 MHz for extended temperature range –40 °C to +125 °C.
2) 433.370 ... 434.415 MHz for extended temperature range –40 °C to +125 °C.

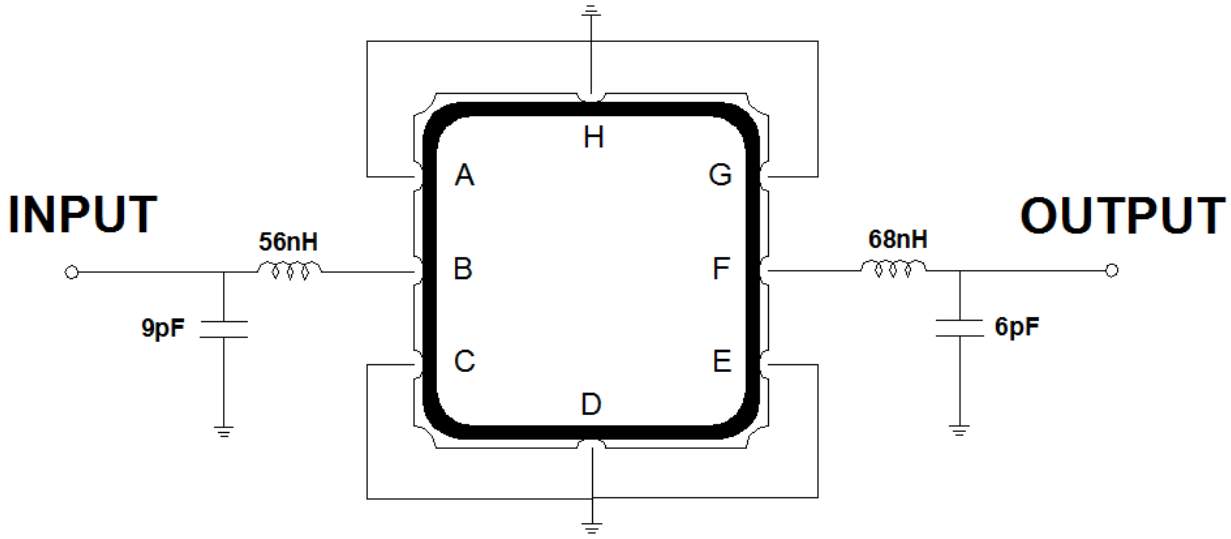
❒ Package Dimensions



Marking Descriptions	
t	ISM-Band Application
Q	Series Number
X	Date Code(Year)
Y	Date Code(Month)

Pin Description	
A	Input or Input Ground
B	Input Ground or Input
E	Output or Output Ground
F	Output Ground or Output
C, D, G, H	Case Ground

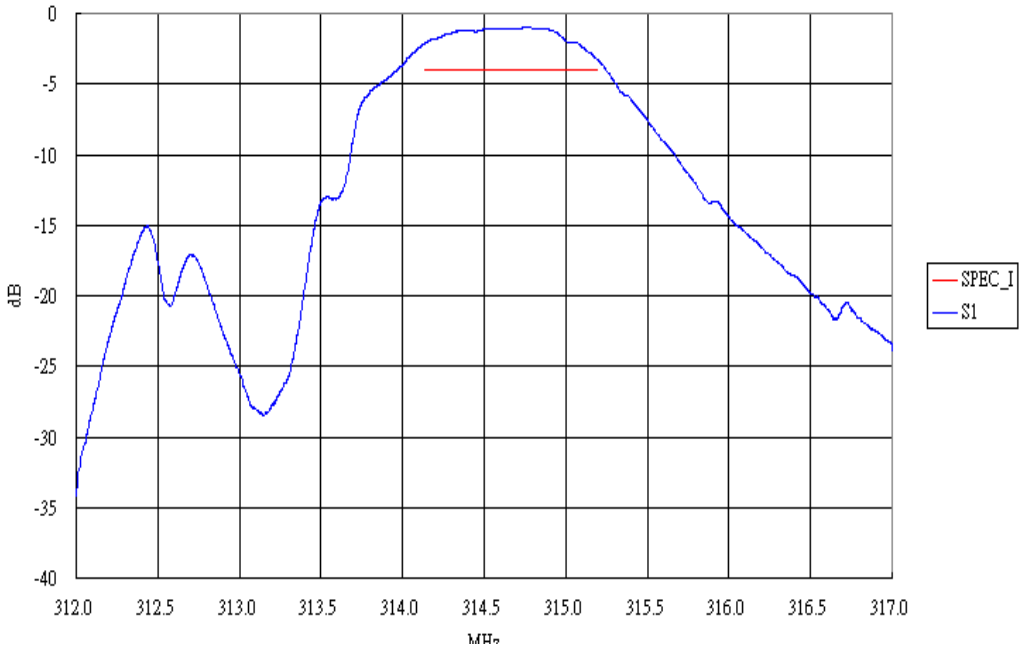
❒ Testing Environment

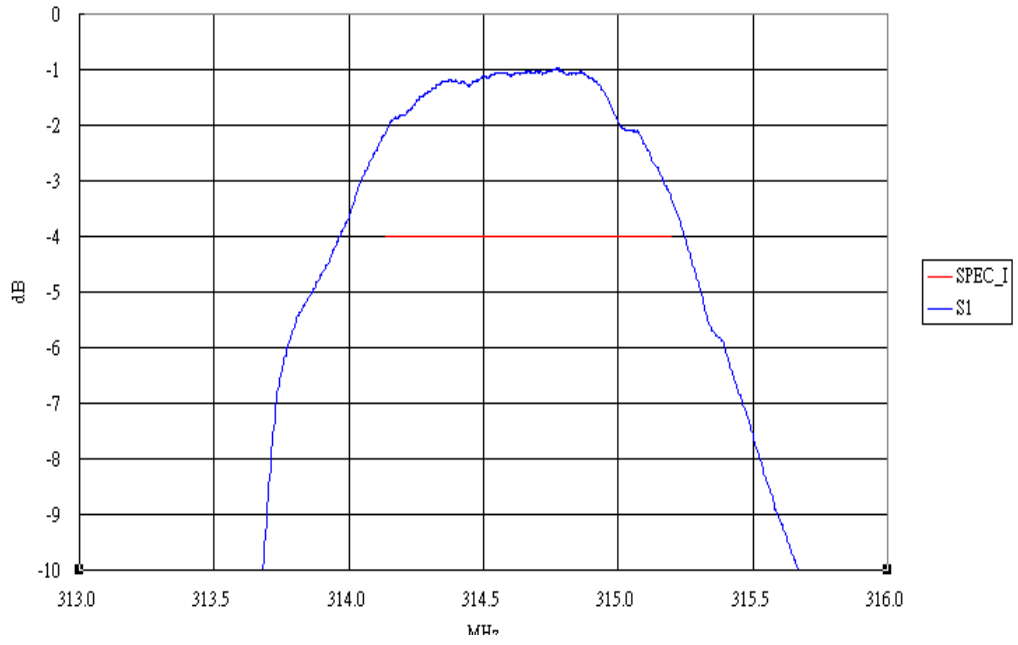


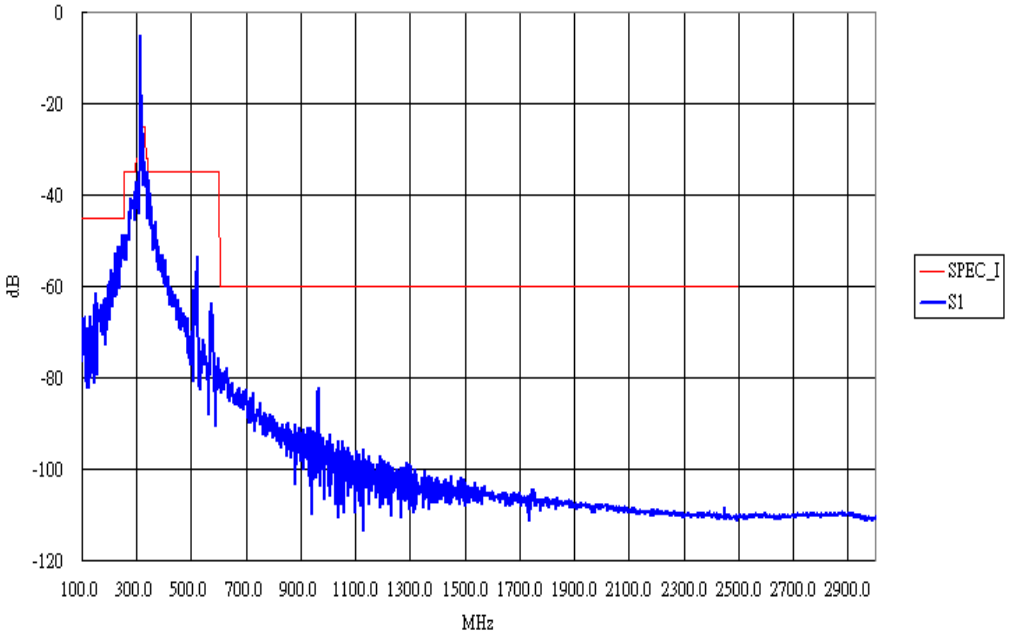
Source & Load Impedance: 50 Ω

❒ Frequency Characteristics

Frequency Response






0
-20
-40
-60
-80
-100
-120
dB
100.0 300.0 500.0 700.0 900.0 1100.0 1300.0 1500.0 1700.0 1900.0 2100.0 2300.0 2500.0 2700.0 2900.0
MHz
SPEC_I
S1