Preliminary

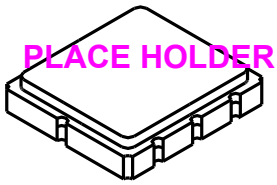
RFM products are now Murata products.

SF2355D

1880/1960MHz SAW Duplexer Filter

- ***Low Insertion Loss Duplexer SAW Filter***
- ***3.8 x 3.8 mm Surface-mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***

Drawing available?



SM3838

Absolute Maximum Ratings

Rating	Value	Units
Maximum Input Power	1.0	W
DC Voltage	0	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Operating Temperature Range	-30 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 10 sec	

Electrical Characteristics

Characteristic - (+25°C)		Sym	Note	Min	Typ	Max	Units
Ant to Rx (1880 MHz)							
Insertion Loss,	1850.6 to 1909.4 MHz			-	1.5	3.0	dB
Passband Ripple,	1850.6 to 1909.4 MHz			-	1.0	2.0	
Return Loss	1850.6 to 1919.4 MHz			9.5	14	-	
Attenuation,	1930.6 to 1989.4 MHz			43	48	-	
Tx to Ant (1960 MHz)							
Insertion Loss,	1930.6 to 1989.4 MHz				2.0	3.5	dB
Passband Ripple,	1930.6 to 1989.4 MHz				1.1	2.6	
Return Loss	1930.6 to 1989.4 MHz			9.5	16		
Attenuation,	1850.6 to 1909.4 MHz			50	55		
Tx to Rx							
Isolation	1850.6 to 1919.4 MHz			54	57		dB
	1930.6 to 1989.4 MHz			45	50		

Case Style	SM3838, 3.8 X3.8 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	B22, YWWS

Characteristic (-30 to +85°C)		Sym	Note	Min	Typ	Max	Units
Ant to Rx (1880 MHz)							
Insertion Loss,	1850.6 to 1909.4 MHz			-	-	3.5	dB
Passband Ripple,	1850.6 to 1909.4 MHz			-	-	2.8	
Return Loss	1850.6 to 1919.4 MHz			9.5		-	
Attenuation,	1930.6 to 1989.4 MHz			43		-	
Tx to Ant (1960 MHz)							
Insertion Loss,	1930.6 to 1989.4 MHz					3.8	dB
Passband Ripple,	1930.6 to 1989.4 MHz					3.0	
Return Loss	1930.6 to 1989.4 MHz			9.5			
Attenuation,	1850.6 to 1909.4 MHz			50			
Tx to Rx							
Isolation	1850.6 to 1909.4 MHz			54			dB
	1930.6 to 1989.4 MHz			45			

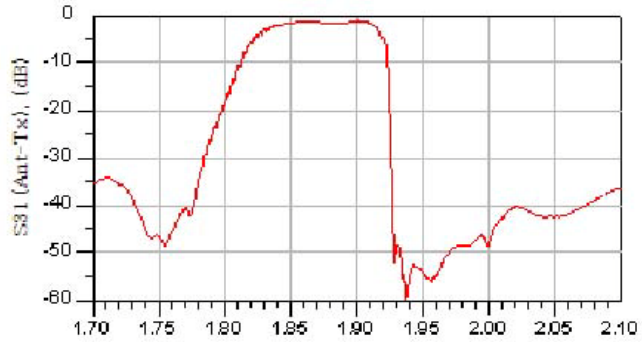
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

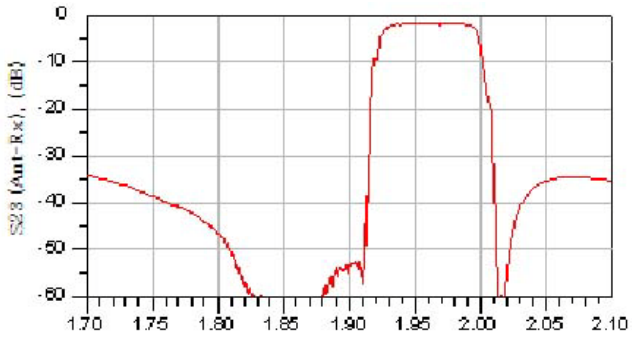
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. The design, manufacturing process, and specifications of this filter are subject to change.
5. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
6. US and international patents may apply.
7. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Frequency Characteristics

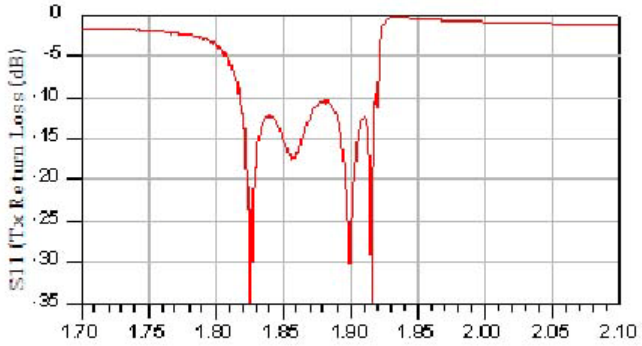
RX



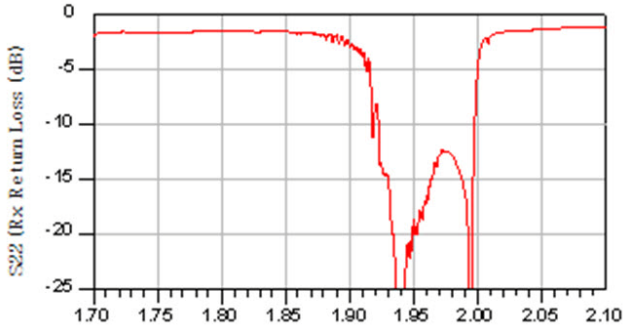
TX



Return Loss RX

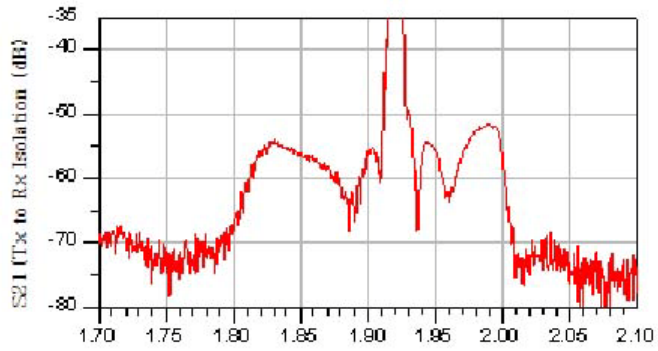


Return Loss TX

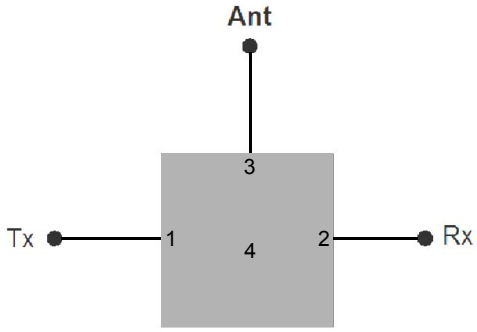


Return Loss Ant

TX to RX Isolation



Measurement Circuit



Electrical Connections

Pin	Connection
4	Ground
1	Tx (
2	Rx
3	Antenna

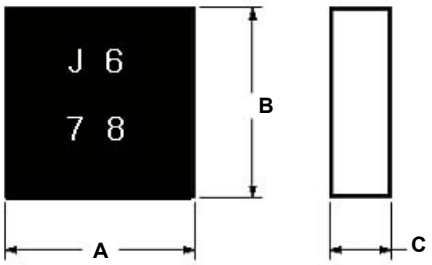
SMD2520-9 Case

Case Dimensions

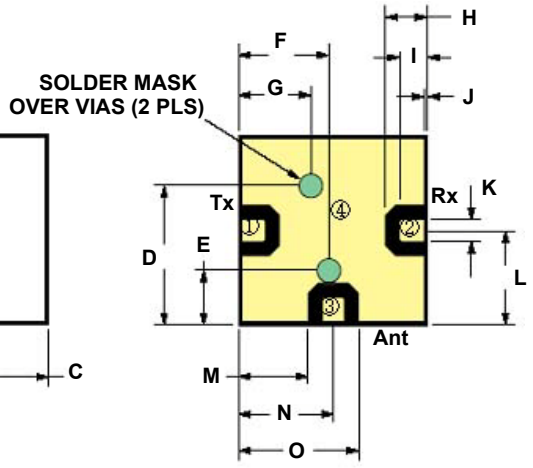
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	-	3.80	-	-	0.149	-
B	-	3.80	-	-	0.149	-
C	-	1.20	-	-	0.047	-
D	-	2.80	-	-	0.110	-
E	-	1.10	-	-	0.043	-
F	-	1.80	-	-	0.070	-
G	-	1.40	-	-	0.055	-
H	-	0.80	-	-	0.031	-
I	-	0.50	-	-	0.019	-
J	-	0.10	-	-	0.003	-
K	-	0.40	-	-	0.015	-
L	-	1.90	-	-	0.015	-
M	-	1.40	-	-	0.055	-
N	-	1.90	-	-	0.074	-
O	-	2.40	-	-	0.094	-

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	

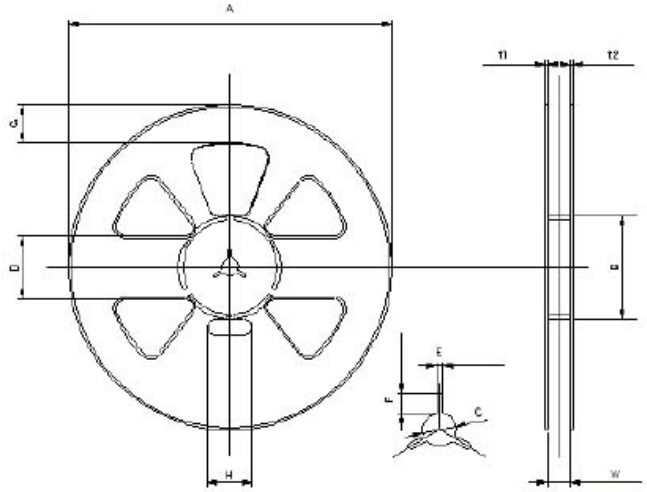
TOP VIEW



BOTTOM VIEW



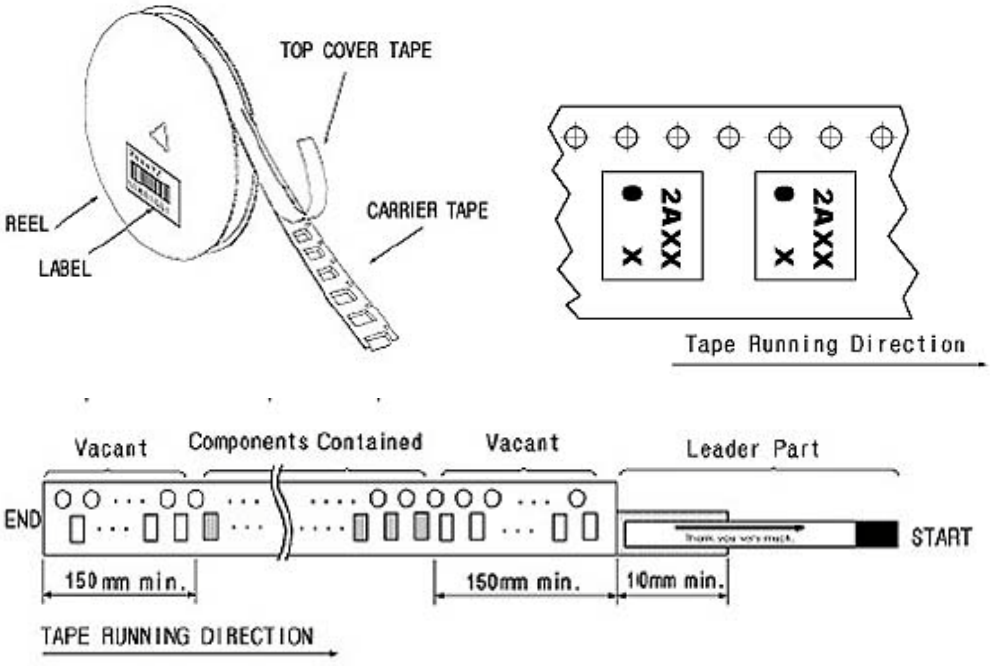
Tape and Reel Specifications



[Unit: mm]

A	B	C	D	E	F	G	H	t1	t2	W
Ø 258.0 +1.0 -0.5	Ø 81.0 +1.0 -1.0	Ø 13.0 +0.5 -0.5	50.0 +0.8 -0.8	2.2 +0.3 -0.3	7.0 +0.5 -0.5	30.0 +0.8 -0.8	35.0 +1.0 -1.0	1.8 +0.5 -0.5	1.5 +0.5 -0.5	9.0 +1.0 -0.5

Component Orientation and Dimensions



Recommended Reflow Profile