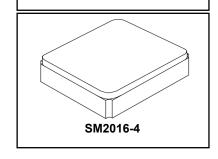




RoHS Compliance
This component is compliant with RoHS directive.
This component was always RoHS compliant from the first date of manufacture.

SF2259H-1

# 915 MHz SAW Filter



- RF SAW Filter, 915 MHz, 26 MHz Bandwidth
- 2.0 x 1.6 x 0.9 mm Surface-mount Case
- Input/Output Impedance  $50\Omega/50\Omega$
- Complies with AEC-Q200 Qualification Testing

### **Absolute Maximum Ratings**

Rating	Value	Units	
Maximum Incident Power in Passband	+15	dBm	
Maximum DC Voltage on any Non-ground Terminal	3	VDC	
Operable Temperature Range	-45 to +125	°C	
Specification Temperature Range	-0 to +50	°C	
Storage Temperature Range in Tape and Reel	-40 to +85	°C	
Maximum Soldering Profile, 5 Cycles	265 °C	265 °C for 10 s	

#### **Electrical Characteristics**

Characteristic	Sym	Notes	Min	Тур	Max	Units
Center Frequency	f <sub>C</sub>			915		MHz
Maximum Insertion Loss, 902 - 928 MHz	IL <sub>MAX</sub>			3.0	4.6	
Amplitude Ripple, p-p, 902 - 928 MHz				1.0	2.6	dB
Return Loss, 902 - 928 MHz			8.5	17		
Group Delay Ripple, 902 - 928 MHz				40	70	ns
Attenuation, Referenced to 0 dB:						
10 to 857.5 MHz			40	52		
857.5 to 893 MHz			10	28		
893 to 895 MHz			7	16		dB
970 to 1005 MHz			30	40		
1005 to 1110 MHz			40	56		
1110 to 3000 MHz			29	39		1
Terminating Source impedance	Z <sub>S</sub>			50		Ω
Terminating Load impedance	Z <sub>L</sub>			50		Ω

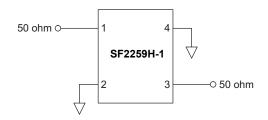
Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms
Case Style	SM2016-4
Lid Symbolization	B2



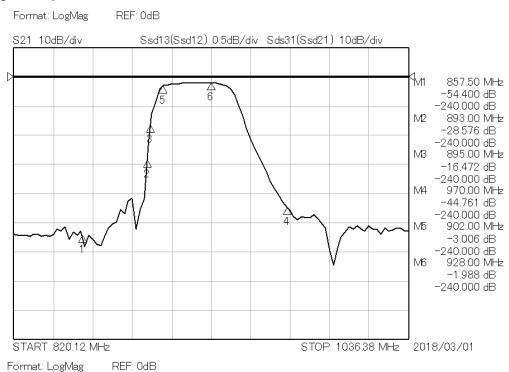
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

- 1. US and international patents may apply.
- 2. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

# **Matching Circuit**



# **Frequency Response Plots**



S21 1dB/div Ssd13(Ssd12) 0.5dB/div Sds31(Ssd21) 10dB/div

M1 902 00 MHz

-3 006 dB

-240 000 dB

M2 928 00 MHz

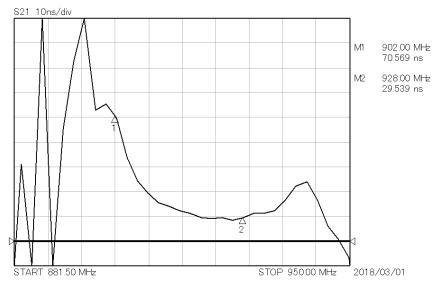
-1 988 dB

-240 000 dB

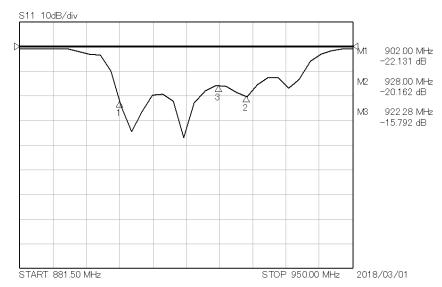
START 881.50 MHz

STOP 950.00 MHz 2018/03/01

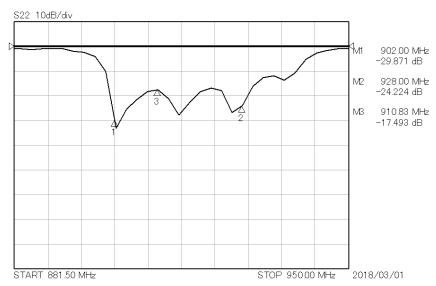
Format: Group Delay REF: 20ns



Format: LogMag REF: 0dB



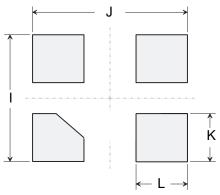
Format: LogMag REF: 0dB



# **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
Α	1.57	1.60	1.73
В	1.97	2.00	2.13
С	0.55	0.65	0.75
D	-	0.10	-
E	-	0.10	-
F	-	0.70	-
G	-	0.50	-
Н	-	0.10	-
ı	-	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 <sub>2</sub> O <sub>3</sub> Ceramic		
Pb Free			

