

- **Low Insertion Loss**
- **Hermetic 19 x 6.5 mm Surface-mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**

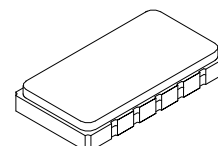


Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +150	°C
Suitable for lead-free soldering - Max. Soldering Profile	260°C for 30 s	

SF2069A-1

**96.00 MHz
SAW Filter**



SMP-75

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency (@ 25°C)	f_o	1	95.9	96.00	96.1	MHz
Minimum Insertion Loss Attenuation				14	16	dB
Passband $\alpha_{min} \leq 1\text{dB}$, B1dB			4.3	5.0		MHz
Amplitude Ripple (p-p)	$\pm 2.40\text{MHz}$			0.8	1.5	dB
Group Delay Ripple	$\pm 2.40\text{MHz}$			80	125	ns
Relative Attenuation (relative to α_{min})						
	40 to 87 MHz		43	48		dB
	111 to 150 MHz		50	55		dB
Operating Temperature	T_A	1	-40		+85	°C

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SMP-75 19 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF2069A-1 YYWW



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

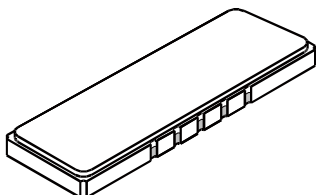
NOTES:

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, f_c .
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. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. 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.
7. US and international patents may apply.

SMP-75 Case

10-Terminal Ceramic Surface-Mount Case

19 x 6.5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	18.80	19.00	19.30	0.740	0.748	0.760
B	6.30	6.50	6.80	0.248	0.256	0.268
C		1.75	2.00		0.069	0.079
D		2.29			0.090	
E		1.02			0.040	
H		1.0			0.039	
P		1.905			0.075	

Electrical Connections		
Connection		Terminals
Port 1	Hot	10
	Ground Return	1
Port 2	Hot	5
	Ground Return	6
Case Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot

Materials	
Solder Pad Termination	Au plating 30 - 60 μinches (76.2-152 μm) over 80-200 μinches (203-508 μm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μinches Thick
Body	Al ₂ O ₃ Ceramic
Pb Free	

