

Discontinued

RFM products are now
Murata products.

- **Designed for SDARS IF Receiver**
- **Low Insertion Loss**
- **5.0 X 7.0 mm Surface-Mount Case**
- **Differential or Single Ended Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**

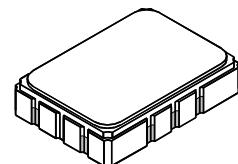


Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Max Soldering Profile	265°C for 10 s	

SF2037B-3

**76.500 MHz
SAW Filter**



SMP-03-S

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_C			76.500		MHz
Passband	Insertion Loss	IL		10.0	12.0	dB
	1dB Passband	BW ₁	3.8	4.1		MHz
	15dB Bandwidth	BW ₁₅		6.7	6.8	MHz
	30dB Bandwidth	BW ₃₀		7.7	7.8	MHz
	Amplitude Ripple over fc ±1.9 MHz			0.5	1.10	dB _{P-P}
	Group Delay Variation over fc ±1.9 MHz	GDV		65	150	ns _{P-P}
Rejection	50 to 65.44 MHz		40	45		dB
	65.44 to 70.44 MHz		39	43		
	70.44 to 72.04 MHz		36	43		
	81.26 to 82.56 MHz		38	49		
	82.56 to 86.50 MHz		39	48		
	86.5 to 91.50 MHz		41	48		
	91.50 to 100.000 MHz		45	58		
Operating Temperature Range	T_A	1	-40		+85	°C
Frequency Temperature Coefficient	FTC			-18		ppm/°C
Differential Input				175 ohms		
Differential Output				1000 ohms		
Case Style			6	SMP-03-S 7 x 5 mm Nominal Footprint		
Lid Symbolization (YY=year, WW=week, S=shift) See note 4				RFM SF2037B-3 YYWWS		

Electrical Connections

Connection	Port 1 Hot	Port 1 Ground Return or Hot	Port 2 Hot	Port 2 Ground Return or Hot	Case Ground
Terminals	10	1	5	6	All Others

 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

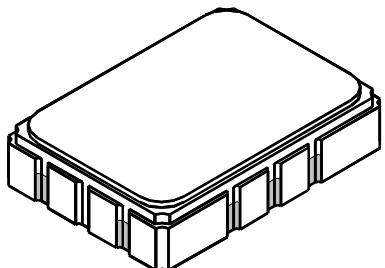
NOTES:

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. Tape and Reel Standard ANSI / EIA 481.
7. 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.
8. US and international patents may apply.
9. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

SMP-03-S Case



12-Terminal Ceramic Surface-Mount Case 5 x 7 mm Nominal Footprint

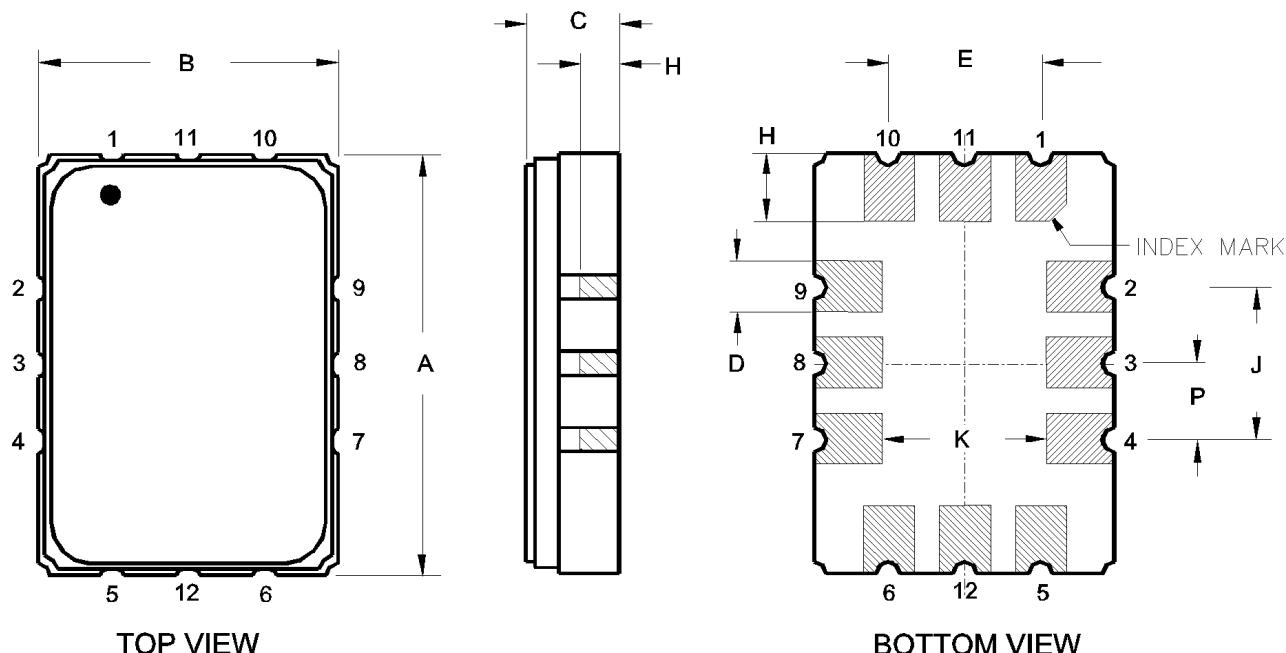


Case Dimensions

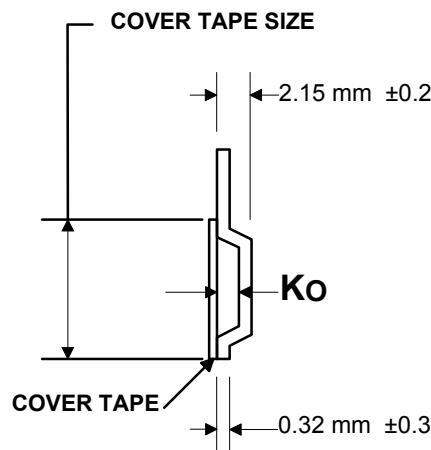
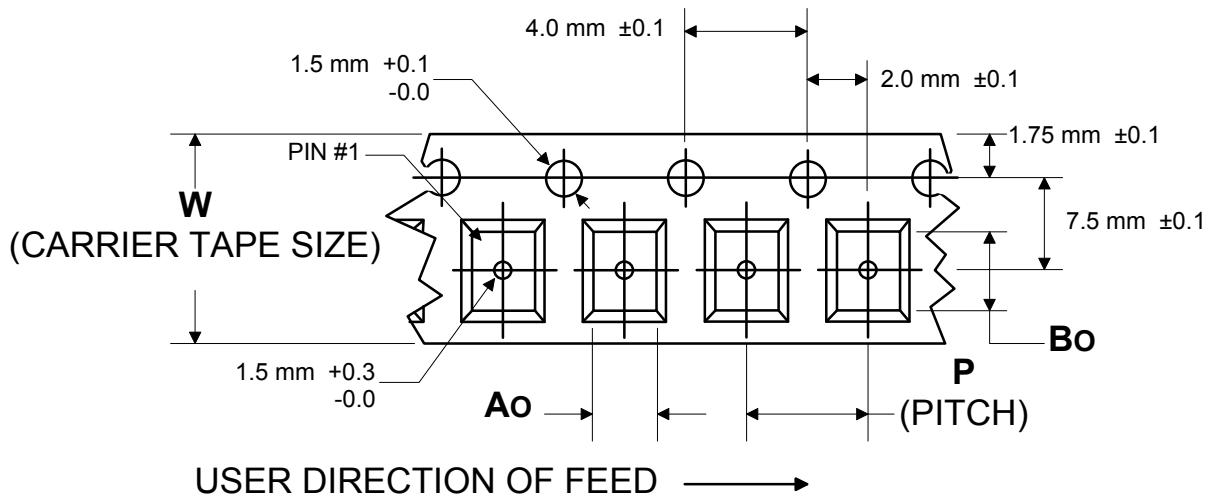
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.80				
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.1	1.13	0.034	0.039	0.044
J		2.54				
K		2.8				
P	1.14	1.27	1.40	0.045	0.050	0.055

Materials

Solder Pad Termination	Au plating 30 - 60 μ inches (76.2-152 μ m) over 80-200 μ inches (203-508 μ m) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μ inches Thick
Body	Al_2O_3 Ceramic
Pb Free	



COMPONENT ORIENTATION and DIMENSIONS



Carrier Tape Dimensions		
Ao	5.5 mm	± 0.1
Bo	7.5 mm	± 0.1
Ko	2.0 mm	± 0.1
Pitch	8.0 mm	± 0.1
W	16.0 mm	± 0.3

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