- ***Ideal Front-End Filter for European Wireless Receivers***
- ***Low-Loss, Coupled-Resonator Quartz Design***
- ***Simple External Impedance Matching***
- ***Ultra Miniature Ceramic SMD Package***

SF418S3

Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
CW RF Power Dissipation	+ 0	dBm
DC Voltage V_{DC}	± 30	V
Operating Temperature Range	-10 ~ +65	°C
Storage Temperature Range	-35 ~ +85	°C

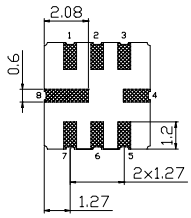
Specifications						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Frequency (25°C)	Nominal Frequency	fc	NS	418.000	NS	MHz
	Tolerance from 418.000 MHz	Δfc	-	±75	-	KHz
Insertion Loss		IL	-	3.5	5.0	dB
3dB Bandwidth		BW_3	-	600	-	KHz
Temperature Stability	Turnover Temperature	To	15	25	35	°C
	Turnover Frequency	fo	-	Fc+2.7	-	KHz
	Frequency Temperature Coefficient	FTC	-	0.032	-	ppm/°C
Frequency Aging	Absolute Value during the First Year	|fA|	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins		-	1.0	-	-	MΩ
Attenuation	fc – 21.4MHz (Image)	-	40	50	-	dB
	fc – 10.7MHz (LO)	-	15	30	-	dB
	Ultimate	-	-	80	-	dB

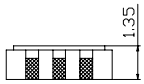
NS = Not Specified

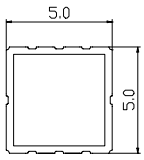
Notes

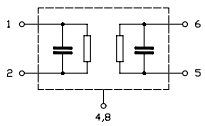
1. Frequency aging is the change in fc with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture, which is connected to a 50 Ω test system (VSWR ≤ 1.2:1). The test fixture's L and C are adjusted for minimum insertion loss at the filter center frequency. fc Note the insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality. The optimum impedance matching component values are dependent on circuit parasitic losses.
3. The frequency fc is defined as the midpoint between the 3dB frequency.
4. Unless notes otherwise, specifications apply over the entire specified operating temperature range.
5. The design, manufacturing process, and specifications of this device are subject to change without notice.
6. The turnover temperature, To is the temperature of maximum (or turnover) frequency, fc the nominal frequency at any case temperature, TC, may be calculated from : $f = fc [1- FTC(To-Tc)^2]$.

Package Outline (SM-3)









Pin Configuration

1 Input Ground
2 Input
5 Output
6 Output Ground
3,4,7,8 Case – Ground

All dimensions are in mm