

- **Ideal Front-End Filter for European Wireless Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Surface-Mount, F-11 Surface Mount Type**

**SF868.35S1**

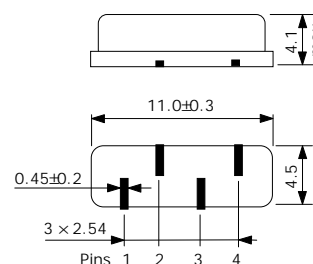
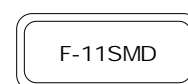
Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
Incident RF Power	+ 13	dBm
DC Voltage V <sub>DC</sub> Between Any Two Pins	±30	V
Operating Temperature Range	-40 ~ +85	°C
Storage Temperature Range	-45 ~ +85	°C

Specifications						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Frequency (25°C) Nominal Frequency		fc	NS	868.350	NS	MHz
Insertion Loss Attenuation		IL	-	5.0	8.5	dB
3dB Passband		BW <sub>3</sub>	-	600	-	KHz
Passband Ripple		-	-	-	±1.0	dB
Temperature Stability	Operating Temperature Range	T <sub>c</sub>	-40	-	+85	°C
	Turnover Temperature	T <sub>o</sub>	15	25	40	
	Turnover Frequency	F <sub>o</sub>	-	fc	-	MHz
	Frequency Temperature Coefficient	FTC	-	0.032	-	ppm/K <sup>2</sup>
Frequency Aging Absolute Value during the First Year		f <sub>a</sub>	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins		-	1.0	-	-	MΩ
Rejection	At fc – 21.4 MHz (Image)	-	40	50	-	dB
	At fc – 10.7 MHz (Low)	-	15	30	-	dB
	Ultimate	-	-	80	-	dB

NS = Not Specified

Notes	Package Outline (SM-1)
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1. Typical demonstration circuit shown is for SM-1 solders seal filters.
2. Passband and rejected bands are specified in reference to fc.
3. All characteristics are specified over the operating temperature range and typical aging is 10 years.
4. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture. Note that insertions loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality. Demonstration circuits are available for confirmation of device performance.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
6. The design, manufacturing process, and specifications of this device are subject to change without notice.
7. The turnover temperature T<sub>o</sub>, is the temperature of maximum (or turnover) frequency fo The nominal frequency at any case temperature T<sub>c</sub>, outside the operating temperature range may be calculated from:  $f = f_o [1 - FTC(T_o - T_c)^2]$ .



Pin	Connection
1	Input/Output
2	Ground
3	Ground
4	Output/Input