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RoHS compliant

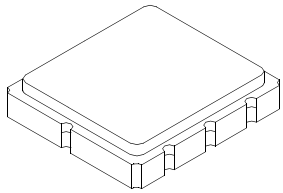
RF1295C

451.35 MHz SAW Filter

- ***Ideal Front-End Filter for 451.35 MHz Wireless Receivers***
- ***Low-Loss Coupled-Resonator Quartz Design***
- ***Simple External Impedance Matching***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Tape and Reel Standard per ANSI/EIA481***
- ***Moisture Sensitivity Level: 1***

The RF1295C is a low-loss, compact, and economical surface acoustic wave (SAW) filter designed to provide front-end selectivity in 451.35 MHz receivers. Recevier designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen. Typical applications of these receivers are wireless remote-control and security devices operating in Europe under ETSI I-ETS 300 220.

This coupled-resonator filter (CRF) uses selective null placement to provide suppression, typically greater than 40 dB, of the LO and image spurious responses of superhet receivers with 10.7 MHz IF. RFMi's advanced SAW design and fabrication technology is utilized to achieve high performance and very low loss with simple external impedance matching (not included).



SM5050-8 Case
5 x 5

Characteristic		Sym	Notes	Minimum	Typical	Maximum	Units
Center Frequency at 25°C	Nominal Frequency	f_{nom}			451.35		MHz
Insertion Loss		IL			2.5	5.0	dB
3 dB Bandwidth Passband		BW_3		700	1000		kHz
Rejection	at f_c - 21.4 MHz (Image)			35	45		dB
	at f_c - 10.7 MHz (LO)			15	30		
	Ultimate				80		
Temperature	Operating Case Temperature	T_C		-40		+85	°C
	Turnover Temperature	T_O		15	25	40	°C
	Turnover Frequency	f_O			f_{nom}		MHz
	Frequency Temperature Coefficent	FTC			0.032		ppm/°C^2
Frequency Aging	Absolute Value during the 1st Year	|fA|			<±10		ppm/yr
External Impedance	Series Inductance	L			27		nH
	Shunt Capacitance	C_1			5.6		pF
	Shunt Capacitance	C_2			8.2		pF
Lid Symbolization (Y=year, WW=week, S = Shift)		482 YWWS					
Standard Reel Quantity	Reel Size 7 Inch			500 Pieces/Reel			
	Reel Size 13 Inch			3000 Pieces/Reel			

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

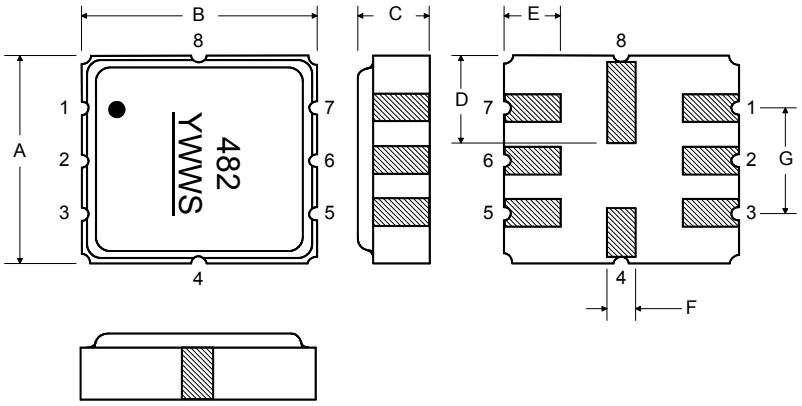
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

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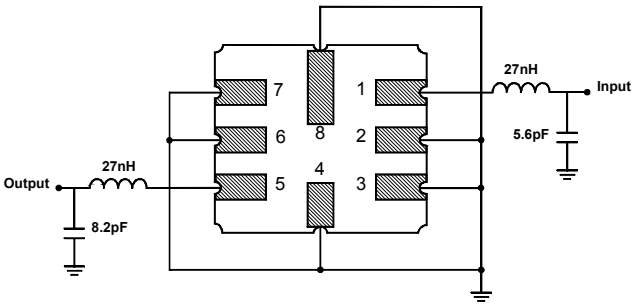
Rating		Value	Units
Input Power Level		10	dBm
DC Voltage		12	VDC
Storage Temperature		-40 to +85	°C
Soldering Temperature	(10 seconds / 5 cycles max.)	260	°C

Electrical Connections

Pin	Connection
1	Input
2	Input Return
3	Ground
4	Case Ground
5	Output
6	Output Return
7	Ground
8	Case Ground



Matching Circuit to 50Ω



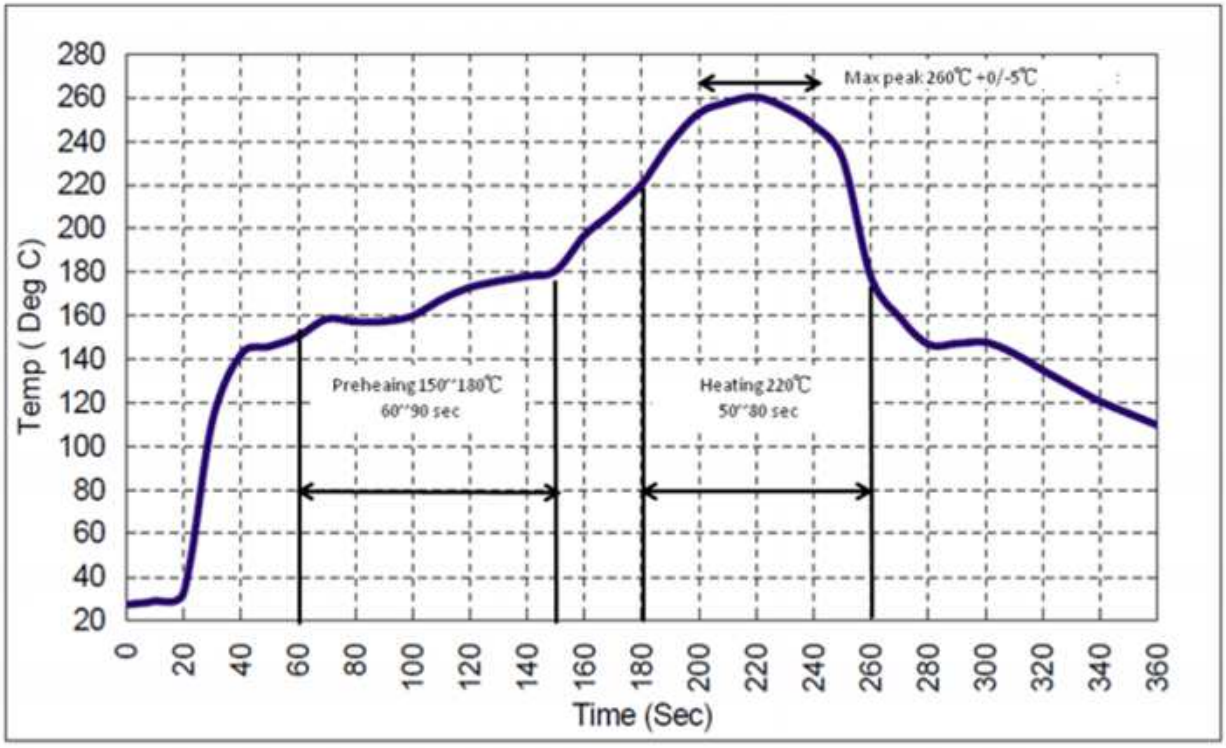
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.8	5.0	5.2	0.189	0.197	0.205
B	4.8	5.0	5.2	0.189	0.197	0.205
C	1.3	1.5	1.7	0.050	0.060	0.067
D	1.98	2.08	2.18	0.078		0.086
E	1.07	1.17	1.27	0.042	0.046	0.050
F	0.50	0.64	0.70	0.020	0.025	0.028
G	2.39	2.54	2.69	0.094	0.100	0.106

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Recommended Reflow Profile

1. Preheating shall be fixed at 150~180° for 60~90 seconds.
2. Ascending time to preheating temperature 150° shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C peak (10 seconds.)
4. Time: 5 times maximum



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