



SAW Components

Data Sheet R 853





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R 853

Resonator

423,22 MHz

Data Sheet

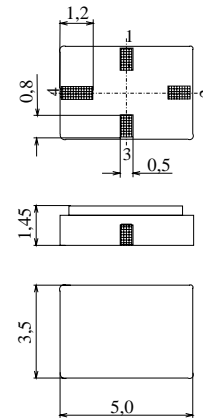
Ceramic package QCC4A

Features

- 1-port resonator
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators

Terminals

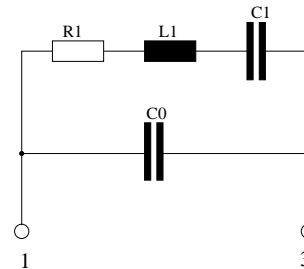
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

- 1 Input
- 3 Output, grounded in 1-port conf.
- 2,4 Ground (case)



Type	Ordering code	Marking and Package according to	Packing according to
R 853	B39421-R 853-H210	C61157-A7-A86	F61074-V8120-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T_A	-40/+125	°C	between any terminals
Storage temperature range	T_{stg}	-40/+125	°C	
DC voltage	V_{DC}	12	V	
Source power	P_s	0	dBm	



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Characteristics

Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ.	max.	
Center frequency ¹⁾	f_c	423,17	423,22	423,27	MHz
Minimum insertion attenuation	α_{\min}	—	1,1	1,5	dB
Unloaded quality factor	Q_U	8300	13500	—	
Ageing of f_c		—	—	-10/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	1,96	—	fF
Motional inductance	L_1	—	72,15	—	μH
Motional resistance	R_1	—	14	19	Ω
Parallel capacitance ²⁾	C_0	—	2,6	—	pF
Temperature coefficient of frequency ³⁾	TC_f	—	-0,032	—	ppm/K ²
Turnover temperature	T_0	15	—	35	$^{\circ}\text{C}$

¹⁾ Center frequency is defined as maximum of the real part of the admittance

²⁾ If used in two port configuration (pin 1-input, pin 3-output) C_0 is reduced by approx. 0,3 pF.

³⁾ Temperature dependence of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



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