EPCOS

SAW Components

Data Sheet R 709

Data Sheet

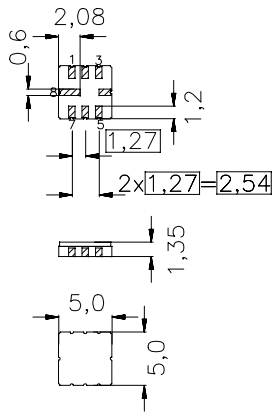
Ceramic package **QCC8C**

Features

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

Terminals

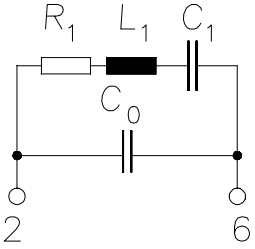
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

2	Input
6	Output, grounded in 1-port conf.
4,8	Ground (case)
1,3	float
5,7	float / ground



Type	Ordering code	Marking and Package according to	Packing according to
R 709	B39401-R 709-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T_A	–45/+85	˚C	
Storage temperature range	T_{stg}	–45/+85	˚C	
DC voltage	V_{DC}	12	V	between any terminals
Source power	P_s	0	dBm	

Data Sheet

Characteristics

Reference temperature: T_A = 25 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency [1]	f_c	403,475	403,55	403,625	MHz
Minimum insertion attenuation	α_{min}	—	1,4	1,9	dB
Unloaded quality factor	Q_U	6000	11000	—	
Ageing of f_c		—	—	± 50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	2,2	—	fF
Motional inductance	L_1	—	70,70	—	µH
Motional resistance	R_1	—	18	30	Ω
Parallel capacitance [2]	C_0	—	3,7	—	pF
Temperature coefficient of frequency [3]	TC_f	—	– 0,03	—	ppm/K²
Turnover temperature	T_0	5	—	45	˚C

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

[2] If used in two port configuration (pin 2-input, pin 6-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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Surface Acoustic Wave Components Division, SAW CE AE PD
P.O. Box 80 17 09, D-81617 München

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