



SAW Components

Data Sheet R 2701

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow and are positioned diagonally across the frame. In the background, there is a faint, stylized globe with circuitry patterns, suggesting a global network or technological theme. The overall color scheme is dark with blue and white highlights.



SAW Components

R 2701

Resonator

433,92 MHz

Data Sheet

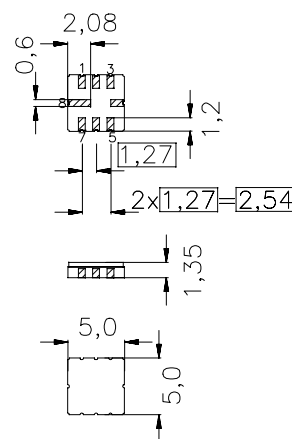
SMD Ceramic package **QCC8C**

Features

- 2-port resonator
- nominal 180°-phase at resonance
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators

Terminals

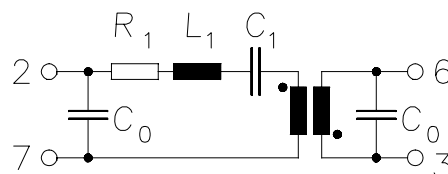
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

2	Input / Output
6	Output / Input
7	Ground (Input / Output)
3	Ground (Output / Input)
4,8	Ground (case)



Type	Ordering code	Marking and Package according to	Packing according to
R2701	B39431-R2701-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T_A	-45/+85	°C	between any terminals
Storage temperature range	T_{stg}	-45/+85	°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: $Z_S = 50\text{ }\Omega$
 Terminating Load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
Center frequency (center frequency between 3 dB points)	f_c	433,845	433,920	433,995	MHz
Minimum insertion attenuation	$\alpha_{\min}$	—	9,2	10,5	dB
Phase at f_c	φ	—	160	—	° el.
Loaded quality factor	Q_L	5000	7800	—	
Unloaded quality factor	Q_U	8000	11200	—	
Ageing of f_c		—	—	±50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	0,141	—	fF
Motional inductance	L_1	—	954	—	μH
Motional resistance	R_1	—	230	—	Ω
Input / Output capacitance	C_0	—	2,3	—	pF
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,03	—	ppm/K ²
Turnover temperature	T_0	—	40	—	°C

¹⁾ 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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