



SAW Components

Data Sheet R 2709

Farnell Code - 7455445

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow and are set against a dark, textured background. In the background, there is a faint, stylized globe and some circuitry patterns, suggesting a global or technological theme.



SAW Components

R 2709

Resonator

868,30 MHz

Data Sheet

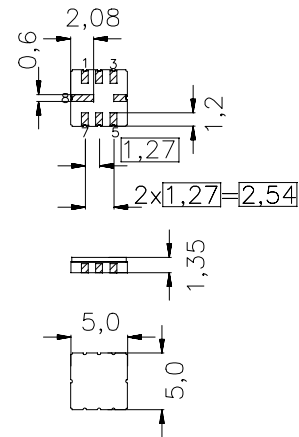
SMD Ceramic package **QCC8C**

Features

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

Terminals

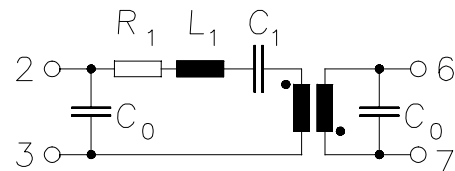
- Ni, gold plated



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
R2709	B39871-R2709-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}	0	V	
Source power	P_s	0	dBm	



SAW Components

R 2709

Resonator

868,30 MHz

Data Sheet

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	868,10	868,30	868,50	MHz
Minimum insertion attenuation	$\alpha_{\min}$	—	7,0	9,0	dB
Phase at f_c	φ	—	130	—	° el.
Loaded quality factor	Q_L	3000	3600	—	
Unloaded quality factor	Q_U	5500	6600	—	
Ageing of f_c		—	—	-10/+40	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	0,279	—	fF
Motional inductance	L_1	—	120,4	—	μH
Motional resistance	R_1	—	100	—	Ω
Input / Output capacitance	C_0	—	1,9	—	pF
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,03	—	ppm/K ²
Turnover temperature	T_0	15	—	35	°C

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



SAW Components

R 2709

Resonator

868,30 MHz

Data Sheet

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW CE AE PD

P.O. Box 80 17 09, D-81617 München

© EPCOS AG 2001. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.