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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# *SAW Components*

*Data Sheet R 709*

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The background is dark and textured.



**SAW Components**

**R 709**

**Resonator**

**403,55 MHz**

**Data Sheet**

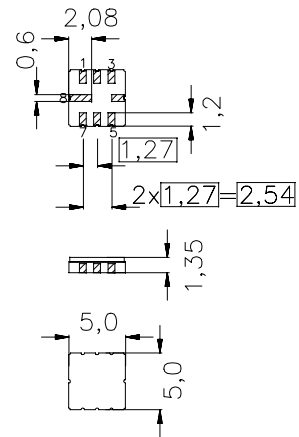
Ceramic package **QCC8C**

**Features**

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

**Terminals**

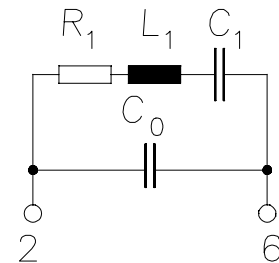
- Ni, gold plated



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 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	



Data Sheet

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.	
<b>Center frequency</b> <sup>1)</sup>	$f_c$	403,475	403,55	403,625	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	1,4	1,9	dB
Unloaded quality factor	$Q_U$	6000	11000	—	
<b>Ageing of <math>f_c</math></b>		—	—	$\pm 50$	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	2,2	—	fF
Motional inductance	$L_1$	—	70,70	—	$\mu\text{H}$
Motional resistance	$R_1$	—	18	30	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_0$	—	3,7	—	pF
<b>Temperature coefficient of frequency</b> <sup>3)</sup>	$TC_f$	—	-0,03	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	5	—	45	$^{\circ}\text{C}$

<sup>1)</sup> Center frequency is defined as maximum of the real part of the admittance

<sup>2)</sup> If used in two port configuration (pin 2-input, pin 6-output)  $C_0$  is reduced by approx. 0,3 pF.

<sup>3)</sup> 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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**Data Sheet**

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