



# *SAW Components*

*Data Sheet R2701*

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 globe or a stylized wave. The background is dark and textured.



**SAW Components**

**R 2701**

**Resonator**

**433,92 MHz**

**Data Sheet**

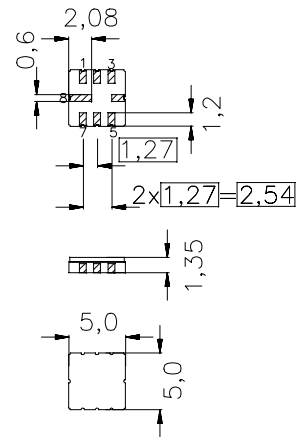
SMD Ceramic package **QCC8C**

**Features**

- 2-port resonator
- nominal 180°-phase at resonance
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- AEC-Q200 qualified component family

**Terminals**

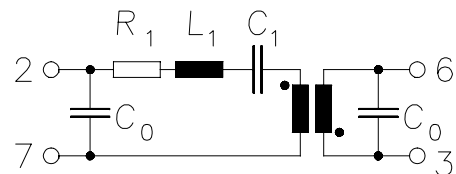
- Ni, gold plated



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/+125	°C	between any terminals
Storage temperature range	$T_{stg}$	-45/+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:  $Z_L = 50\ \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b> (center frequency between 3 dB points)	$f_c$	433,845	433,920	433,995	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	9,2	10,5	dB
Phase at $f_c$	$\varphi$	—	160	—	° el.
Loaded quality factor	$Q_L$	5000	7800	—	
Unloaded quality factor	$Q_U$	8000	11200	—	
<b>Ageing of <math>f_c</math></b>		—	—	±50	ppm
<b>Equivalent circuit elements</b>					
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
<b>Temperature coefficient of frequency</b> <sup>1)</sup>	$TC_f$	—	-0,03	—	ppm/K <sup>2</sup>
Turnover temperature	$T_0$	—	40	—	°C

<sup>1)</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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**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW CE AE PD**

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This brochure replaces the previous edition.

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