



# SAW Components

Data Sheet R 705





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R 705

### Resonator

315,00 MHz

#### Data Sheet

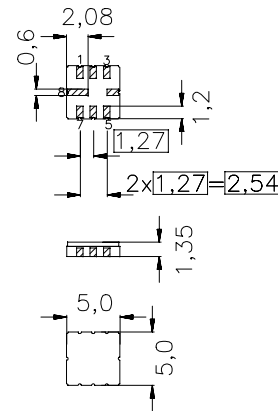
#### Features

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

#### Terminals

- Ni, gold plated

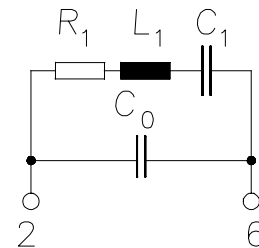
Ceramic package **QCC8C**



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 705	B39321-R 705-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T_A$	-45/+120	°C	between any terminals
Storage temperature range	$T_{stg}$	-45/+120	°C	
DC voltage	$V_{DC}$	12	V	
Source power	$P_s$	0	dBm	



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#### Characteristics

Reference temperature:  $T_A = 25\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\text{ }\Omega$   
 Terminating load impedance:  $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
<b>Center frequency</b> <sup>1)</sup>	$f_c$	314,915	315,00	315,085	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	1,5	2,0	dB
Unloaded quality factor	$Q_U$	8000	16000	—	
<b>Ageing of <math>f_c</math></b>		—	—	$\pm 50$	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	1,987	—	fF
Motional inductance	$L_1$	—	128,5	—	$\mu\text{H}$
Motional resistance	$R_1$	—	19	—	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_0$	—	3,2	—	pF
<b>Temperature coefficient of frequency</b> <sup>3)</sup>	$TC_f$	—	- 0,03	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	10	—	40	$^{\circ}\text{C}$

<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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