



SAW Components

Data Sheet R 2704

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern, overlaid with a large, stylized, and slightly blurred "EPCOS" logo. The logo is rendered in a light gray, almost white, color, giving it a three-dimensional appearance as if it's floating or attached to the globe. The background is dark and textured, with some light streaks and a sense of motion or depth.

EPCOS



SAW Components

R 2704

Resonator

315,00 MHz

Data Sheet

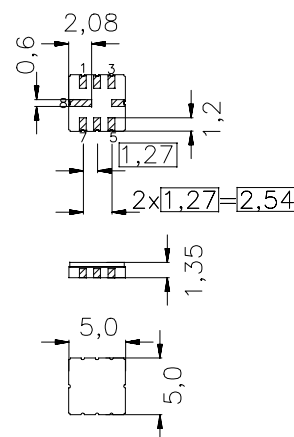
SMD Ceramic package **QCC8C**

Features

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

Terminals

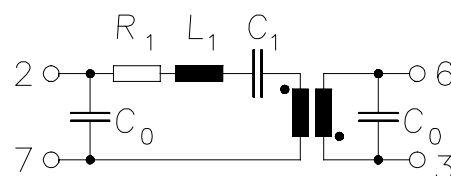
- Ni, gold plated



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
R2704	B39321-R2704-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	



SAW Components

R 2704

Resonator

315,00 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	314,900	315,000	315,100	MHz
Minimum insertion attenuation	$\alpha_{\min}$	—	9,4	11,0	dB
Phase at f_c	φ	—	160	—	° el.
Loaded quality factor	Q_L	5800	9000	—	
Unloaded quality factor	Q_U	9200	13600	—	
Ageing of f_c		—	—	±50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	0,196	—	fF
Motional inductance	L_1	—	1,302	—	μH
Motional resistance	R_1	—	195	—	Ω
Input / Output capacitance	C_0	—	1,3	—	pF
Temperature coefficient of frequency ¹⁾	TC_f	—	−0,03	—	ppm/K ²
Turnover temperature	T_0	—	25	—	°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 2704

Resonator

315,00 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.