



SAW Components

Data Sheet R983

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a glowing, white, sans-serif font, appearing to float or be attached to a dark, curved, metallic-looking surface. The background is dark and textured, suggesting a globe or a complex circuit board structure.



SAW Components

R 983

Resonator

403,55 MHz

Data Sheet



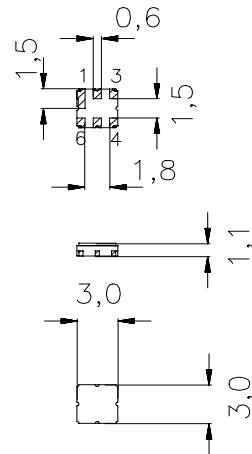
Ceramic package DCC6C

Features

- 1-port resonator
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- Protection layer: ELPAS
- AEC-Q200 qualified component family

Terminals

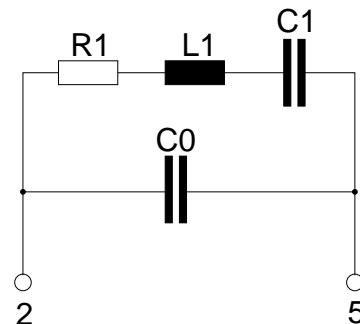
- Ni, gold plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

- 2 Input
- 5 Output, grounded in 1-port conf.
- 1, 3, 4, 6 Ground (case)



Type	Ordering code	Marking and Package according to	Packing according to
R 983	B39401-R 983-U410	C61157-A7-A67	F61074-V8168-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T_A	-40/+125	°C	between any terminals
Storage temperature range	T_{stg}	-40/+125	°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.	
Center frequency ¹⁾	f_c	403,45	403,55	403,65	MHz
Minimum insertion attenuation	α_{\min}	—	1,5	1,9	dB
Unloaded quality factor	Q_U	8600	12200	—	
Ageing of f_c		—	—	-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	1,7	—	fF
Motional inductance	L_1	—	91,84	—	μH
Motional resistance	R_1	—	19	27	Ω
Parallel capacitance ²⁾	C_0	—	2,5	—	pF
Temperature coefficient of frequency ³⁾	TC_f	—	-0,032	—	ppm/K ²
Turnover temperature	T_0	20	—	50	$^{\circ}\text{C}$

¹⁾ Center frequency is defined as maximum of the real part of the admittance

²⁾ If used in two port configuration (pin 2-input, pin 5-output) C_0 is reduced by approx. 0,3 pF.

³⁾ 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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This brochure replaces the previous edition.

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.