EPCOS

SAW Components

Data Sheet R 689

Data Sheet

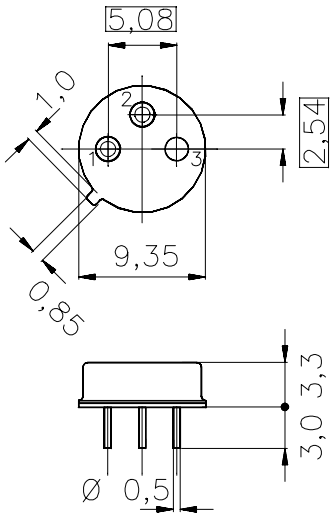
Metal package **TO 39**

Features

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

Terminals

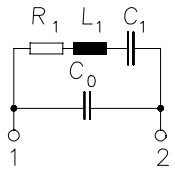
- NiFeCo, gold plated



Dimensions in mm, approx. weight 1,0 g

Pin configuration

1	Input
2	Ground
3	Ground (case)



Type	Ordering code	Marking and Package according to	Packing according to
R 689	B39411-R 689-B110	C61157-A7-A24	F61074-V8072-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T_A	–45/+85	˚C	
Storage temperature range	T_{stg}	–45/+85	˚C	
DC voltage	V_{DC}	12	V	between any terminals
Source power	P_s	0	dBm	

Data Sheet

Characteristics

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency [1]	f_c	407,225	407,300	407,375	MHz
Minimum insertion attenuation	α_{min}	—	1,0	1,6	dB
Unloaded quality factor	Q_U	7500	14000	—	
Ageing of f_c		—	—	± 50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	—	2,356	—	fF
Motional inductance	L_1	—	64,82	—	µH
Motional resistance	R_1	—	12	22	Ω
Parallel capacitance	C_0	—	2,8	—	pF
Temperature coefficient of frequency [2]	TC_f	—	– 0,03	—	ppm/K^2
Turnover temperature	T_0	40	—	70	°C

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

[2] 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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