Siemens Matsushita Components

SAW Components
Resonator

R2528
418.00 MHz

Preliminary Data

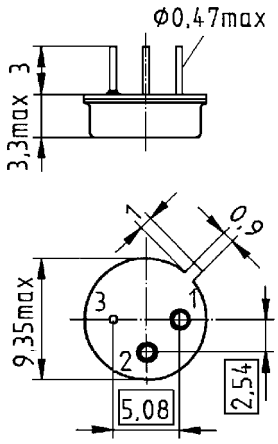
Metal package **TO39**

Features

- 2 - port resonator

Terminals

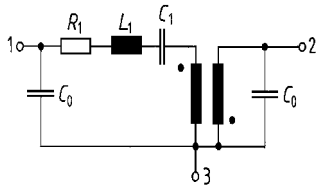
- NiFeCo, gold plated



Dimensions in mm, approx. weight 1.0 g

Pin configuration

1	Input 1
2	Input 2
3	Ground



Type	Ordering code	Marking
R2528	B39421-R2528-B110	Type, date code

Maximum ratings

Ambient temperature	T_A	-45/+85	˚C	-
Storage temperature	T_{stg}	-45/+85	˚C	-
DC voltage	V_{DC}	0	V	between any terminals
AC voltage	V_{pp}	12	V	between any terminals
Power dissipation	P_{max}	0	dBm	

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

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Resonator **418.00 MHz**

Preliminary Data
Characteristics

Ambient temperature T_A = 25 ˚C
Source impedance Z_S = 50 Ω
Load impedance Z_L = 50 Ω

		min.	typ.	max.	
Center frequency (center between 3 dB points)	f_C	417.920	418.000	418.080	MHz
Insertion attenuation at f_C	α	-	7.5	10.0	dB
Phase at f_C	φ	130	150	170	˚el.
Loaded quality factor [1]	Q_L	5000	6700	-	
Unloaded quality factor	Q_U	7000	11500	-	
Ageing of f_C		-	-	50	ppm
Equivalent circuit elements					
Motional capacitance	C_1	-	0.2	-	fF
Motional inductance	L_1	-	0.6	-	µH
Motional resistance	R_1	-	140	-	Ω
Parallel capacitance	C_0	-	1.5	-	pF
Temperature coefficient of frequency [2]	TC_f	-	-0.03	-	ppm/K^2
Frequency inversion point	T_0	10	20	30	˚C

[1] Loaded quality factor: $Q_L = Q_U\ (1\text{-}10^{-\alpha/20})$

[2] Temperature dependance of f_C: $f_C(T_A) = f_C(T_0)(1 + TC_f(T_A - T_0)^2)$