



SAW Components

Data Sheet B5025

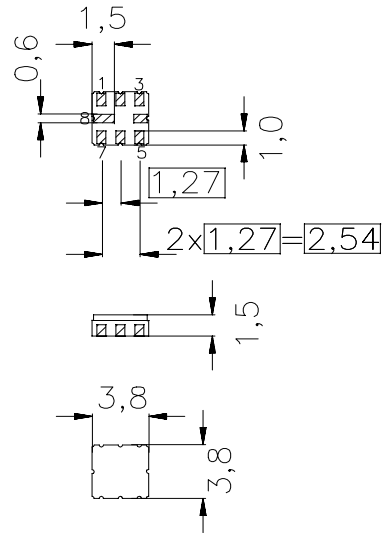


Data Sheet
Ceramic package QCC8B
Features

- Low-loss IF filter
- Ceramic SMD package
- Balanced or unbalanced operation

Terminals

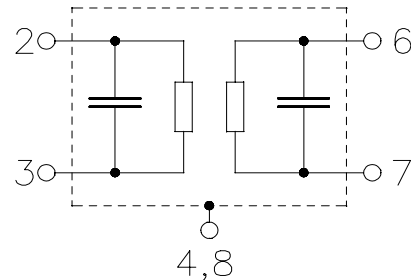
- Gold plated



typ. Dimensions in mm, approx. weight 0,1 g

Pin configuration

3	Input
2	Input or input ground
7	Output
6	Output or output ground
4, 8	Case ground
1, 5	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B5025	B39371-B5025-Z810	C61157-A7-A46	F61074-V8167-Z000

Electrostatic Sensitive Device (ESD)
Maximum ratings

Operable temperature range	T	-40 / +85	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}^*	100*	V	
Source power	P_s	10	dBm	

*-acc. to JESD22-A115A(Machine Model), 10 negative & 10 positive pulses



Data Sheet

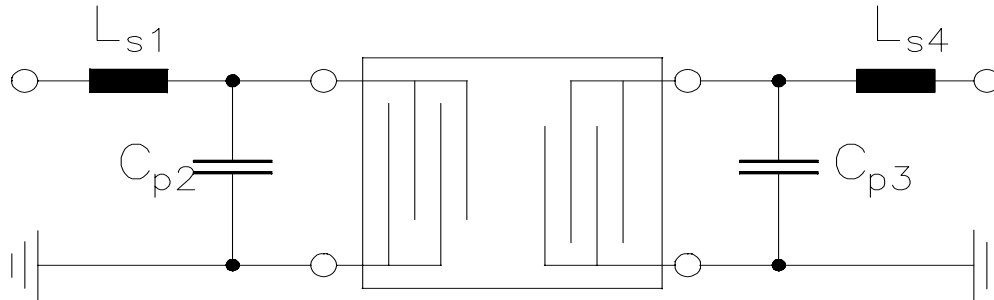
Characteristics

Operating temperature range: $T = -10 \dots 80 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$ unbalanced and matching network.
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$ unbalanced and matching network.

		min.	typ.	max.	
Nominal frequency	f_N	—	374,0	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	—	4,1	6,0	dB
Bandwidth	$B_{3\text{dB}}$				
$\alpha_{\text{rel}} \leq 3 \text{ dB}$		17	20,5	—	MHz
Amplitude ripple (peak-to-peak)	$\Delta\alpha$				
$f_N \pm 7 \text{ MHz}$		—	1,0	1,5	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 7 \text{ MHz}$		—	45	100	ns
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N - 65,0 \text{ MHz} \dots f_N - 22,0 \text{ MHz}$		40	54	—	dB
$f_N - 22,0 \text{ MHz} \dots f_N - 16,5 \text{ MHz}$		35	41	—	dB
$f_N + 16,5 \text{ MHz} \dots f_N + 20,0 \text{ MHz}$		27	35	—	dB
$f_N + 20,0 \text{ MHz} \dots f_N + 30,0 \text{ MHz}$		35	37	—	dB
$f_N + 30,0 \text{ MHz} \dots f_N + 80,0 \text{ MHz}$		40	50	—	dB
Temperature coefficient of frequency	TC_f	—	- 70	—	ppm/K

Data Sheet**Matching network to 50 Ω**

(Element values depend upon PCB layout)



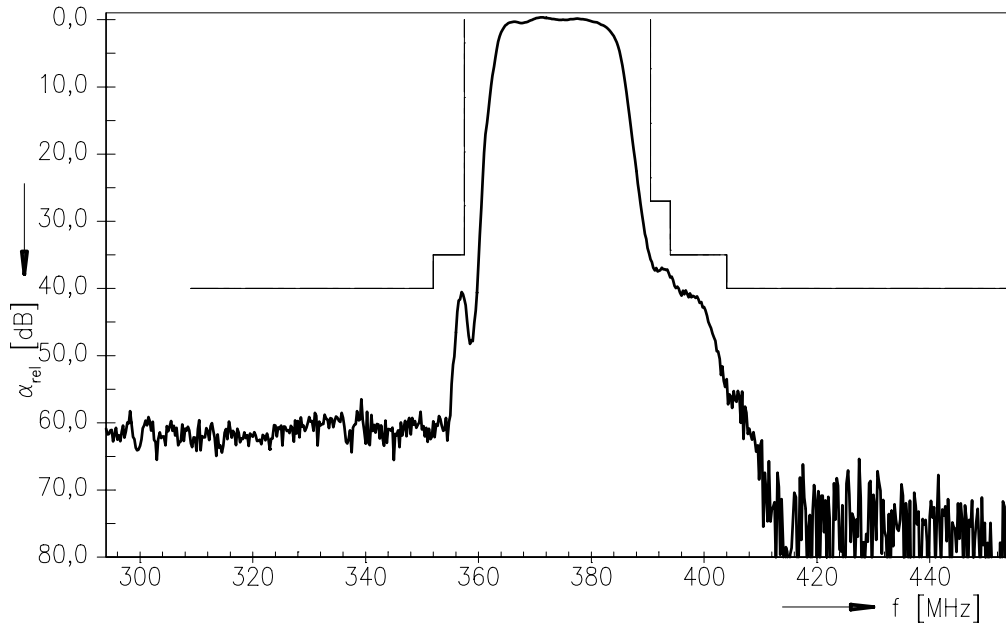
$$L_{s1} = 39\text{nH}$$
$$C_{p2} = 1,2\text{pF}$$

$$C_{p3} = 1,0\text{pF}$$
$$L_{s4} = 47\text{nH}$$

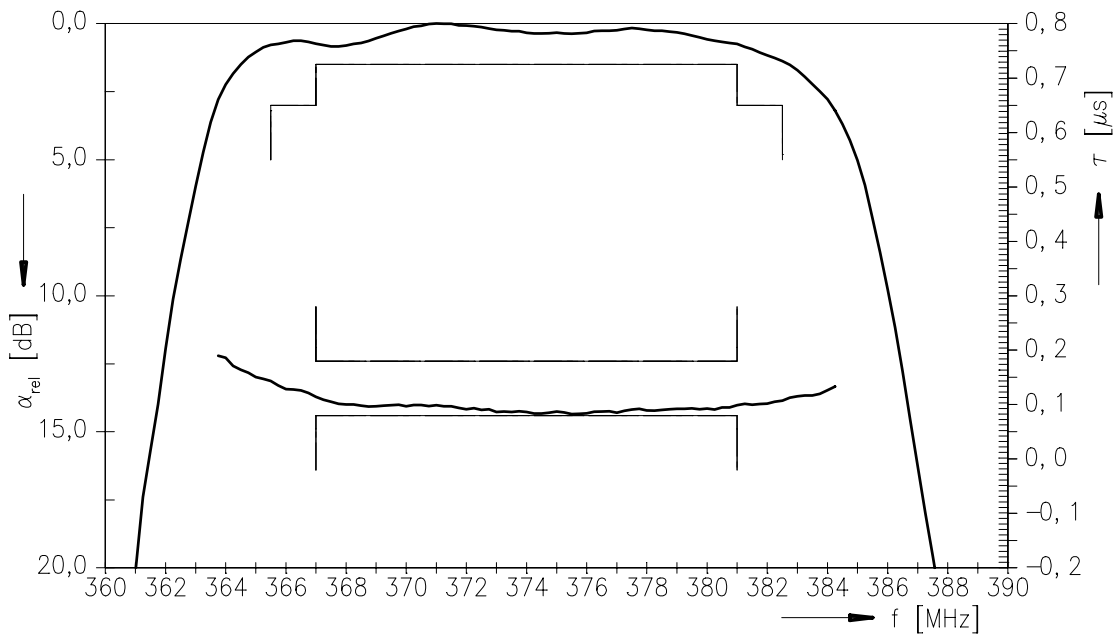


Data Sheet

Transfer function:



Transfer function (pass band):





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B5025

Low-Loss Filter

374,0 MHz

Data Sheet

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