



SAW Components

Data Sheet B3647

Data Sheet

An abstract, high-tech graphic. The word "EPCOS" is rendered in large, glowing, 3D block letters that appear to be floating or emerging from a dark, textured background. Behind the letters, a faint, stylized globe is visible, along with abstract, circuit-like patterns that suggest a technological or electronic theme. The overall effect is one of modernity and innovation.



SAW Components

B3647

Low-Loss Filter

125,0 MHz

Data Sheet

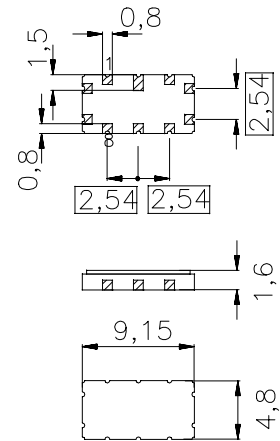
Ceramic package **QCC10B**

Features

- Low-loss wideband IF filter
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)

Terminals

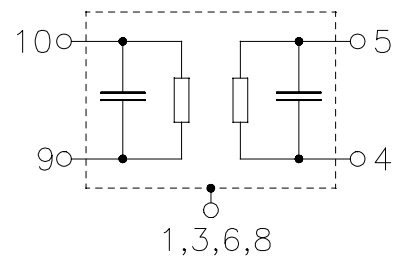
- Gold-plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

10	Input
9	Input ground
5	Output
4	Output ground
2, 7	Ground
1, 3, 6, 8	Case – ground



Type	Ordering code	Marking and Package according to	Packing according to
B3647	B39131-B3647-Z710	C61157-A7-A49	F61064-V8035-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 25/+ 85	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	- 40/+ 125	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Source power	P_{s}	10	dBm	



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Characteristics

Operating temperature:	$T_A = -10 - +85\text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$

			min.	typ.	max.	
Nominal frequency	f_N		—	125,0	—	MHz
Insertion attenuation	$f_N \pm 150\text{ kHz}$	$\alpha_{\max}$	1,2	1,5	3,2	dB
Passband width		$B_{1,0dB}$				
	$\alpha_{\text{rel}} \leq 1,0\text{ dB}$		—	2,2	—	MHz
Amplitude ripple (p-p)		$\Delta\alpha$				
	$f_N \pm 150\text{ kHz}$		—	0,15	1,0	dB
Absolute group delay (at f_N)		τ	—	250	300	ns
Group delay ripple (p-p)		$\Delta\tau$				
	$f_N \pm 150\text{ kHz}$		—	20	30	ns
Relative attenuation (relative to $\alpha_{\max}$)		α_{rel}				
	10,0 MHz ... $f_N - 28,0\text{ MHz}$		12,0	70,0	—	dB
	$f_N - 28,0\text{ MHz}$... $f_N - 14,0\text{ MHz}$		5,0	50,0	—	dB
	$f_N - 14,0\text{ MHz}$... $f_N - 0,15\text{ MHz}$		0,0	—	—	dB
	$f_N + 0,15\text{ MHz}$... $f_N + 14,0\text{ MHz}$		0,0	—	—	dB
	$f_N + 14,0\text{ MHz}$... $f_N + 23,0\text{ MHz}$		30,0	50,0	—	dB
	$f_N + 23,0\text{ MHz}$... $f_N + 33,0\text{ MHz}$		44,0	48,0	—	dB
	$f_N + 33,0\text{ MHz}$... $f_N + 325,0\text{ MHz}$		38,0	46,0	—	dB
Input IP3 (Third order intercept point)¹⁾			45	—	—	dBm
VSWR	$f_N \pm 150\text{ kHz}$		—	1,4:1	2,0:1	
Temperature coefficient of frequency	TC_f		—	-70	—	ppm/K

1) With two 10 dBm fundamental signals at 125 MHz and 139 MHz applied the third order intermodulation product at the output at 111 MHz will have less than -64 dBm.



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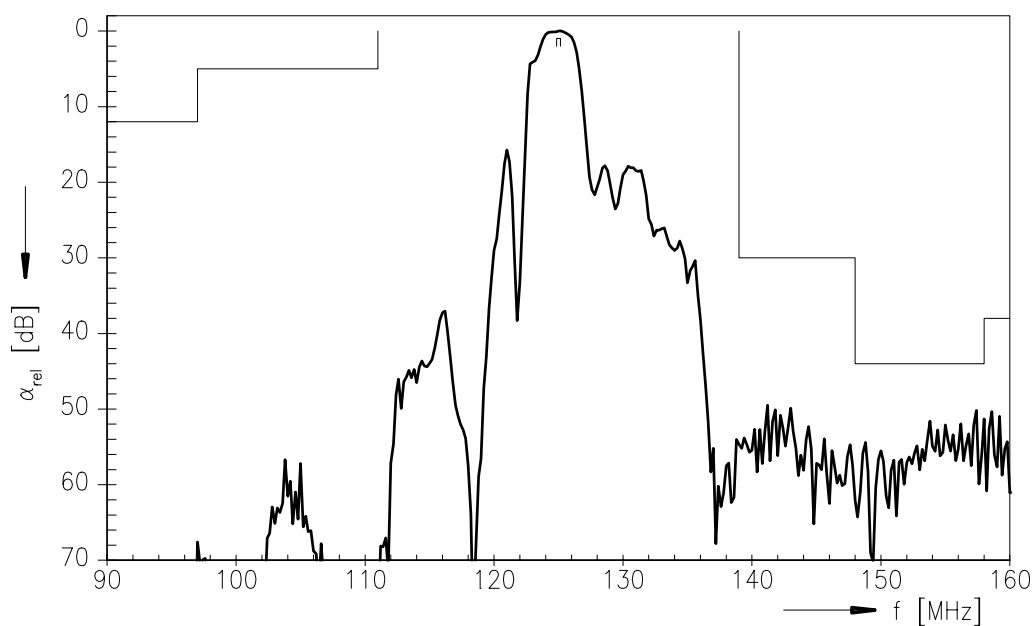
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Low-Loss Filter

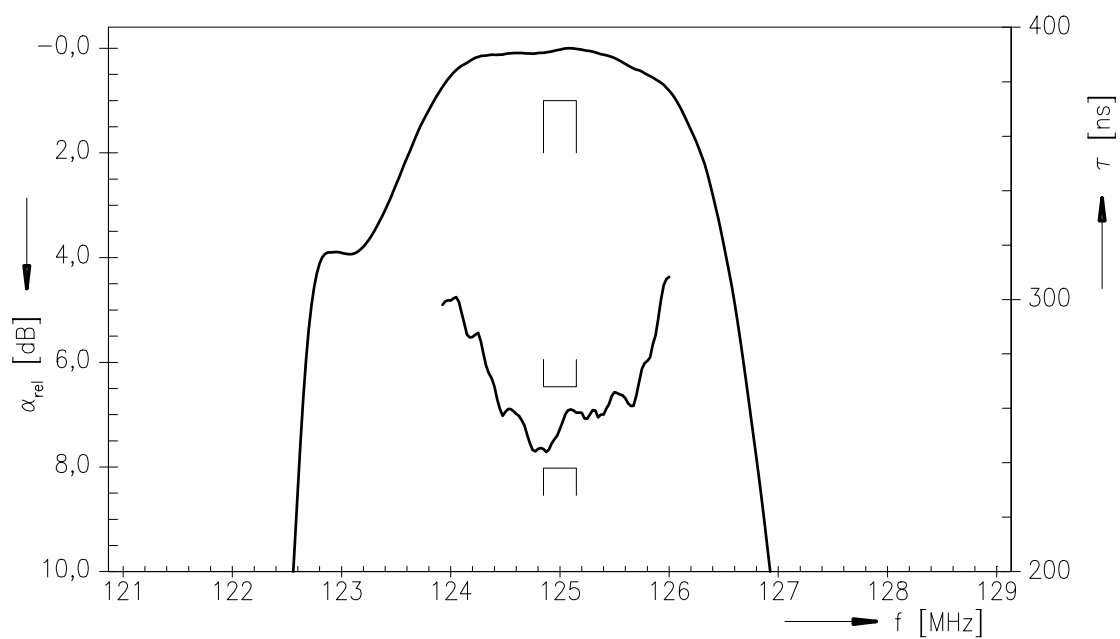
125,0 MHz

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Transfer function



Transfer function (pass band)





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