



SAW Components

Data Sheet B3647

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 be part of a larger, curved structure that resembles the top of the EPCOS logo triangle. The background is dark and textured, with a faint map of the world visible.



SAW Components

B3647

Low-Loss Filter

125,0 MHz

Data Sheet

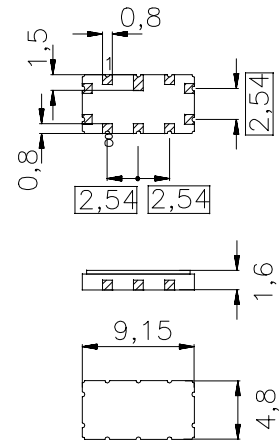
Ceramic package **QCC10B**

Features

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

Terminals

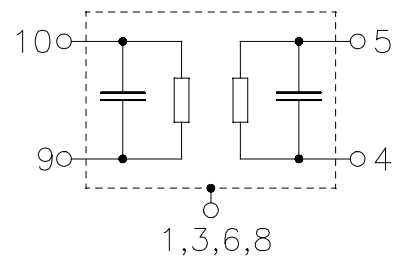
- Gold-plated



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	°C
Storage temperature range	T_{stg}	- 40/+ 125	°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: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

			min.	typ.	max.	
Nominal frequency	f_N		—	125,0	—	MHz
Insertion attenuation	$f_N \pm 150 \text{ kHz}$	α_{\max}	1,2	1,5	3,2	dB
Passband width	$\alpha_{\text{rel}} \leq 1,0 \text{ dB}$	$B_{1,0\text{dB}}$	—	2,2	—	MHz
Amplitude ripple (p-p)	$f_N \pm 150 \text{ kHz}$	$\Delta\alpha$	—	0,15	1,0	dB
Absolute group delay (at f_N)		τ	—	250	300	ns
Group delay ripple (p-p)	$f_N \pm 150 \text{ kHz}$	$\Delta\tau$	—	20	30	ns
Relative attenuation (relative to α_{\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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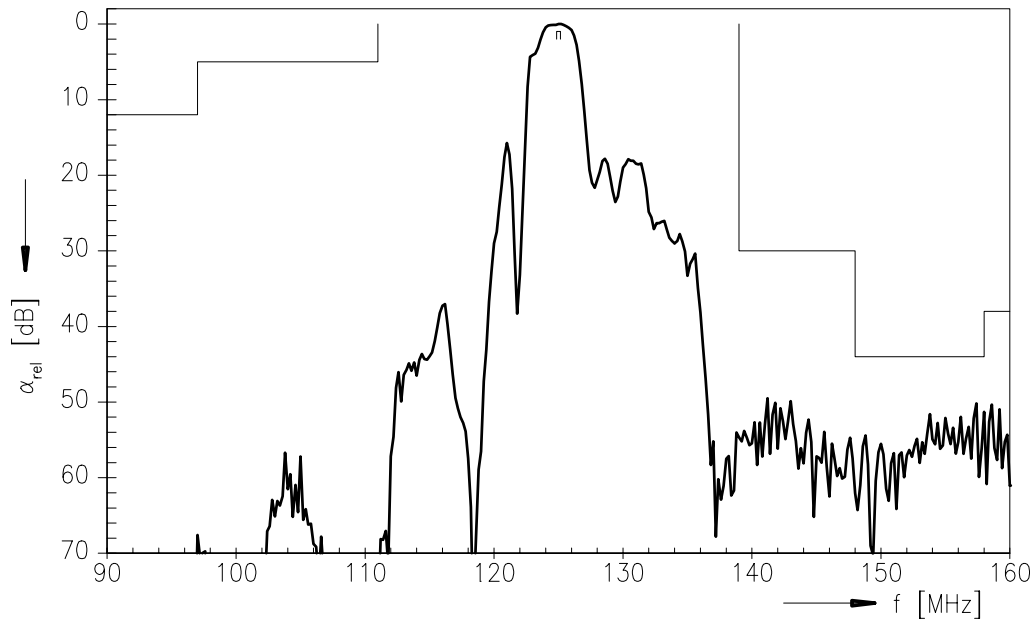
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Low-Loss Filter

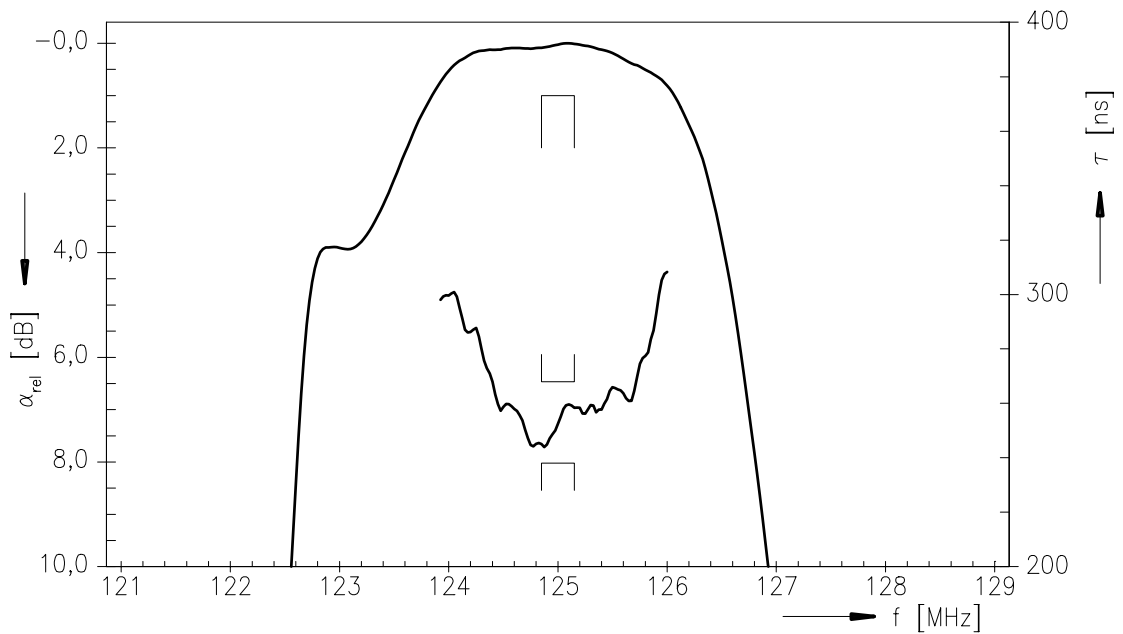
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Transfer function



Transfer function (pass band)





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Low-Loss Filter

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