



SAW Components

Data Sheet B4165

Data Sheet

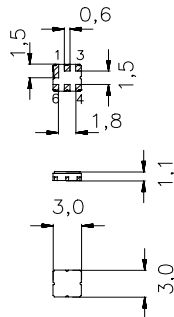
A large, stylized, and somewhat abstract background graphic. It features a globe with a grid pattern, overlaid with the word "EPCOS" in large, white, 3D-style letters. The letters are slightly tilted and appear to be floating or attached to the globe. The overall color scheme is grayscale with blue highlights from the logo above.

EPCOS

Features

- Low-loss RF filter for iDEN mobile telephone, receive path
- Low amplitude ripple
- No matching network required for operation at 50 Ω
- Ceramic Package for **Surface Mounted Technology (SMT)**

Ceramic package **DCC6C**



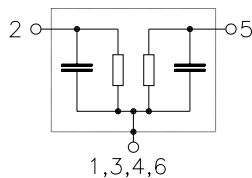
Terminals

- Gold-plated Ni

Dimensions in mm, approx. weight 0,037g

Pin configuration

2	Input
5	Output
1, 3, 4, 6	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B4165	B39941-B4165-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	$-30 / +70$	$^{\circ}\text{C}$	source impedance 50 Ω continuous wave
Storage temperature range	T_{stg}	$-40 / +85$	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Input power max.	P_{IN}	0	dBm	

Characteristics

Operating temperature range:	$T = 25 \pm 2^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	938,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
935,000 ... 941,000 MHz		—	2,1	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
935,000 ... 941,000 MHz		—	0,2	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
935,000 ... 941,000 MHz		—	3	10	ns
Attenuation	$\alpha_{\min}$				
0,000 ... 896,000 MHz		27	47	—	dB
896,000 ... 902,000 MHz		37	55	—	dB
989,825 ... 995,825 MHz		27	52	—	dB
1044,650 ... 1050,650 MHz		37	52	—	dB
1154,300 ... 1160,300 MHz		47	50	—	dB
1160,300 ... 3200,000 MHz		27	35	—	dB
Input and output return loss					
935,000 ... 941,000 MHz		12	14	—	dB

SAW Components	B4165
Low-Loss Filter for Mobile Communication	938,0 MHz

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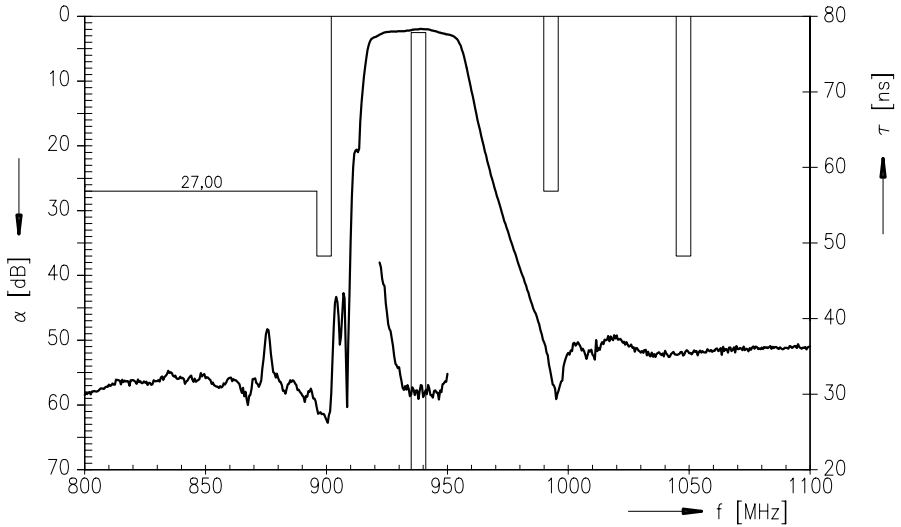


Characteristics

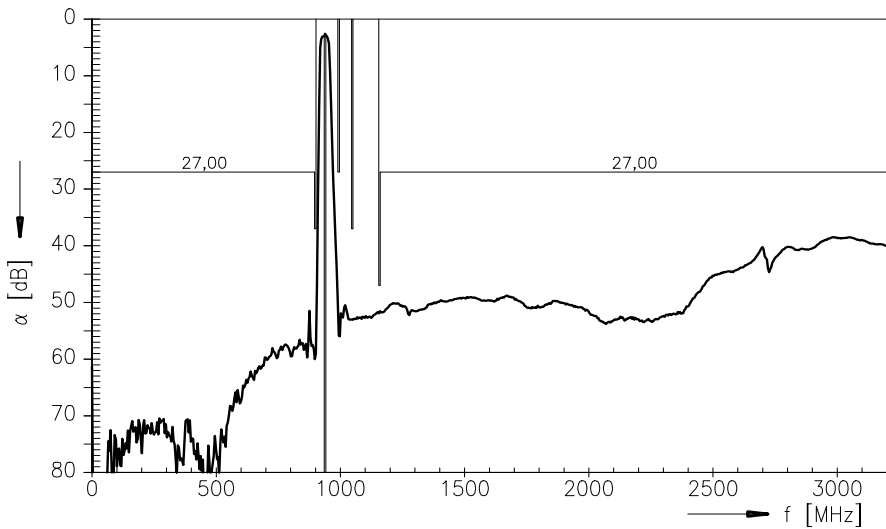
Operating temperature range:	$T = -30 \text{ to } +70^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50 \Omega$
Terminating load impedance:	$Z_L = 50 \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	938,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
935,000 ... 941,000 MHz		—	2,5	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
935,000 ... 941,000 MHz		—	0,5	1,0	dB
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935,000 ... 941,000 MHz		—	3	10	ns
Attenuation	$\alpha_{\min}$				
0,000 ... 896,000 MHz		27	47	—	dB
896,000 ... 902,000 MHz		37	48	—	dB
989,825 ... 995,825 MHz		27	50	—	dB
1044,650 ... 1050,650 MHz		37	51	—	dB
1154,300 ... 1160,300 MHz		47	50	—	dB
1160,300 ... 3200,000 MHz		27	35	—	dB
Input and output return loss					
935,000 ... 941,000 MHz		12	14	—	dB

Transfer function (25+/-2 °C)



Transfer function (wideband)



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