EPCOS

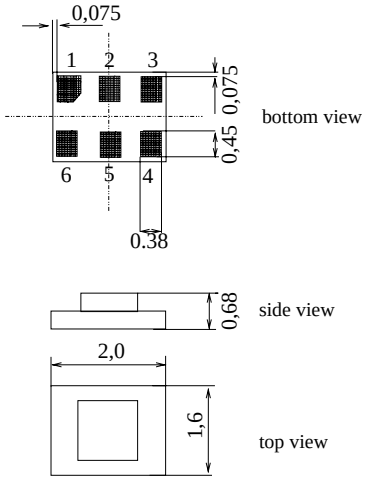
SAW Components

Data Sheet B9017

Chip Size SAW package DCS6T

Features

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 35 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 150 Ω
- Package for **S**urface **M**ounted **T**echnology **(SMT)**
- Pb-free



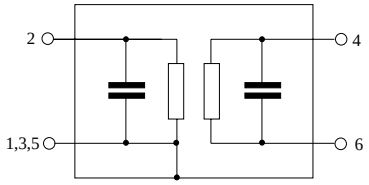
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,012g

Pin configuration

2	Input
4	Balanced output
6	Balanced output
1, 3, 5	Ground, to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9017	B39941-B9017-K310	C61157-A7-A128	F61074-V8152-Z000

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

Maximum ratings

Operable temperature range	T	– 30 / + 85	°C	
Storage temperature range	T_{stg}	– 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{MM}	100	V	machine model
	V_{HMB}	250	V	human body model
Input power at GSM850, GSM900 GSM1800 and GSM1900 Tx bands	P_{IN}	15	dBm	peak power of GSM signal, duty cycle 4:8

Characteristics

Operating temperature range: T = +25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 150 Ω || 82 nH (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}				
925,0 ... 960,0 MHz		—	1,6	2,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	0,6	1,0	dB
Input VSWR					
925,0 ... 960,0 MHz		—	1,8	2,0	
Output VSWR					
925,0 ... 960,0 MHz		—	1,8	2,0	
Attenuation	α				
0,0 ... 480,0 MHz		45	55	—	dB
480,0 ... 880,0 MHz		30	39	—	dB
880,0 ... 905,0 MHz		23	38	—	dB
905,0 ... 915,0 MHz		20	28	—	dB
980,0 ...1500,0 MHz		24	30	—	dB
1500,0 ...6000,0 MHz		30	44	—	dB
Diff. to common mode suppression	S_{sc12}				
925,0 ... 960,0 MHz		20	30	—	dB
824,0 ... 995,0 MHz		20	26	—	dB
1648,0 ... 1990,0 MHz		20	46	—	dB
3296,0 ... 3980,0 MHz		20	42	—	dB

Characteristics

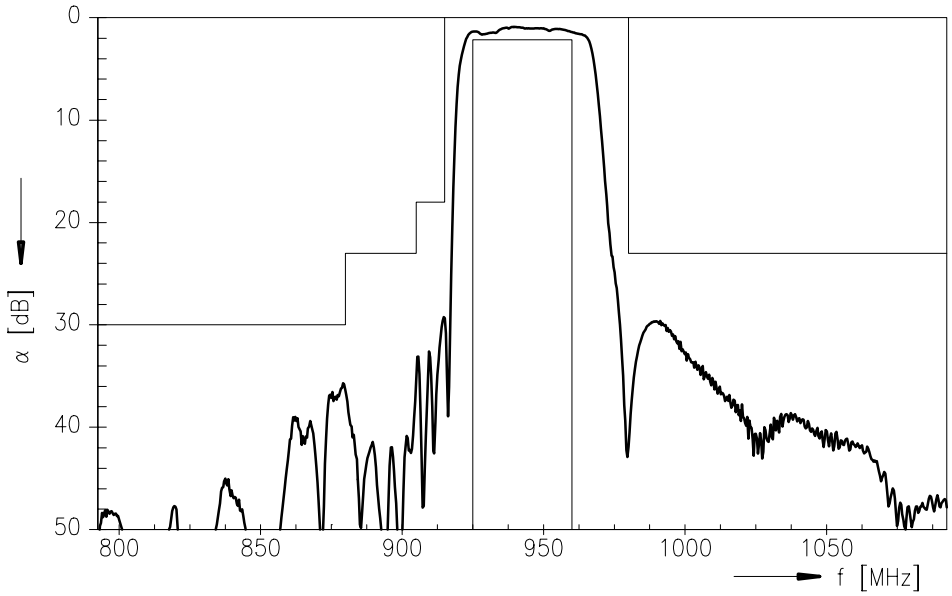
Operating temperature range: T = -10 to +80 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 150 Ω || 82 nH (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}				
925,0 ... 960,0 MHz		—	1,7	2,1[1]	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	0,7	1,2[2]	dB
Input VSWR					
925,0 ... 960,0 MHz		—	1,8	2,0	
Output VSWR					
925,0 ... 960,0 MHz		—	1,8	2,0	
Attenuation	α				
0,0 ... 480,0 MHz		45	55	—	dB
480,0 ... 880,0 MHz		30	39	—	dB
880,0 ... 905,0 MHz		23	38	—	dB
905,0 ... 915,0 MHz		18	28	—	dB
980,0 ...1500,0 MHz		23	30	—	dB
1500,0 ...6000,0 MHz		30	44	—	dB
Diff. to common mode suppression	S_{sc12}				
925,0 ... 960,0 MHz		20	30	—	dB
824,0 ... 995,0 MHz		20	26	—	dB
1648,0 ... 1990,0 MHz		20	46	—	dB
3296,0 ... 3980,0 MHz		20	42	—	dB

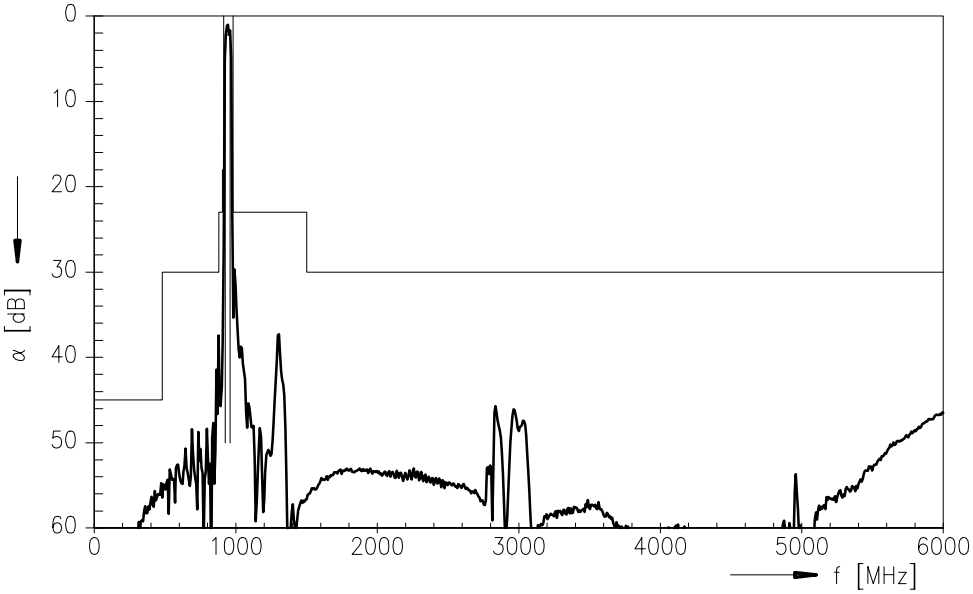
[1] 2,6 dB for T = -30 to +80 °C [2] 1,7 dB for T = -30 to +80 °C

Other guaranteed values for T = -30 to +80 °C same as for T = -10 to +80 °C

Transfer function (passband)



Transfer function (wideband)



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