



# SAW Components

Data Sheet B9017





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**B9017**

**Low-Loss Filter for Mobile Communication**

**942,5 MHz**

**Data Sheet**



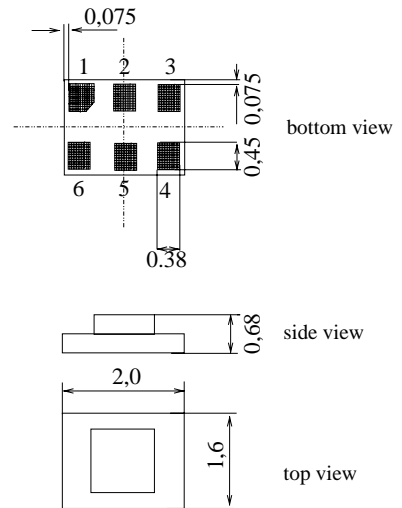
**Chip Size SAW package DCS6T**

**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 **Surface Mounted Technology (SMT)**
- Pb-free

**Terminals**

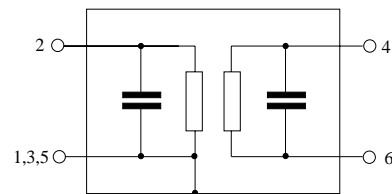
- Ni, gold-plated



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 Sensitive Device (ESD)**

**Maximum ratings**

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



**Characteristics**

Operating temperature range:  $T = +25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 150\ \Omega \parallel 82\text{ nH}$  (balanced)

			min.	typ.	max.	
<b>Center frequency</b>	$f_C$		—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$					
		925,0 ... 960,0 MHz	—	1,6	2,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		925,0 ... 960,0 MHz	—	0,6	1,0	dB
<b>Input VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,0	
<b>Output VSWR</b>						
		925,0 ... 960,0 MHz	—	1,8	2,0	
<b>Attenuation</b>	$\alpha$					
		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
<b>Diff. to common mode suppression</b>	$S_{sc12}$					
		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



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**Characteristics**

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

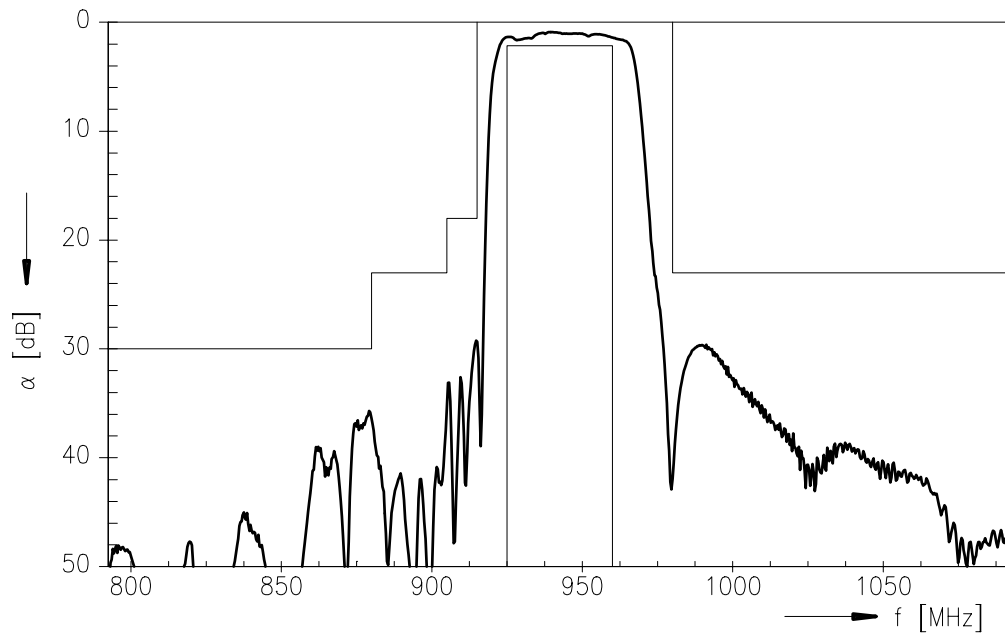
			<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$		—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	925,0 ... 960,0 MHz	—	1,7	2,1 <sup>1)</sup>	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	925,0 ... 960,0 MHz	—	0,7	1,2 <sup>2)</sup>	dB
<b>Input VSWR</b>		925,0 ... 960,0 MHz	—	1,8	2,0	
<b>Output VSWR</b>		925,0 ... 960,0 MHz	—	1,8	2,0	
<b>Attenuation</b>	$\alpha$					
		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
<b>Diff. to common mode suppression</b>	$S_{sc12}$					
		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

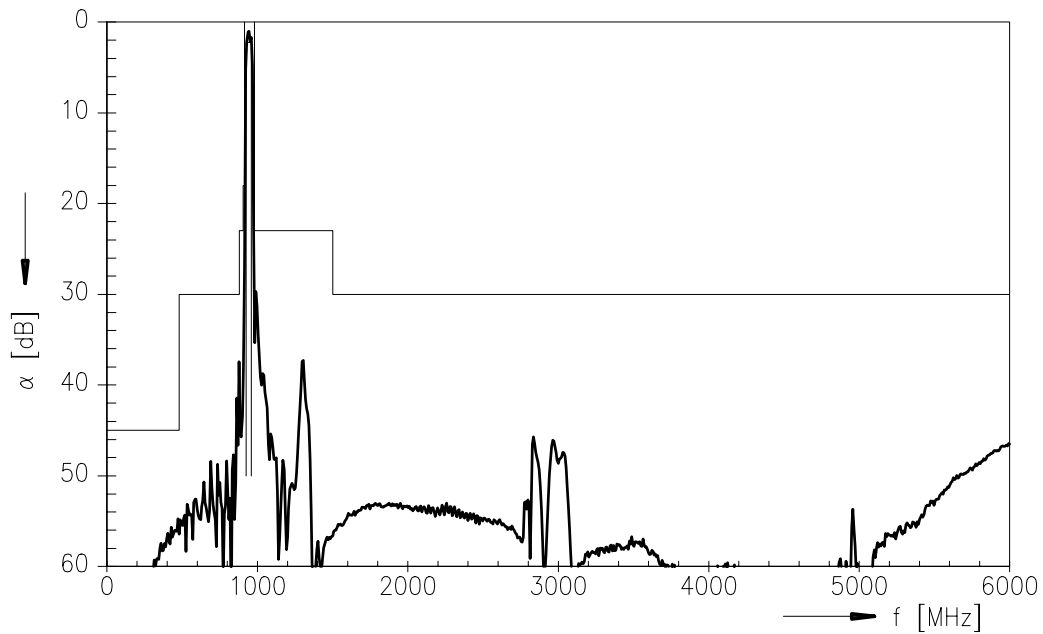
Other guaranteed values for  $T = -30$  to  $+80$  °C same as for  $T = -10$  to  $+80$  °C



Transfer function (passband)



Transfer function (wideband)





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