EPCOS

SAW Components

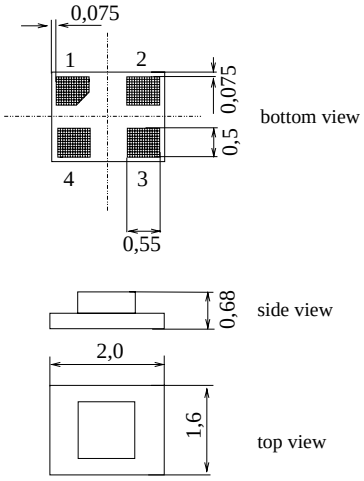
Data Sheet B9022

Data Sheet SMD

Features

- Low-loss RF filter for mobile telephone Cellular systems, receive path
- Usable passband 25 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Suitable for GPRS Class 1 to 12
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)

Chip sized SAW package DCS4F



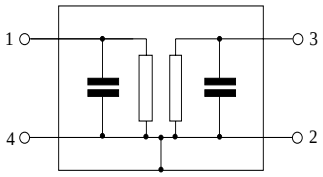
Dimensions in mm, approx. weight 0,007 g

Terminals

- Ni, gold-plated

Pin configuration

1	Input, unbalanced
3	Output, unbalanced
2,4	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B9022	B39881-B9022-E610	C61157-A7-A113	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_{ESD}*	100*	V	machine model, 10 pulses
Input power at GSM850, GSM900 GSM1800 and GSM1900 Tx bands	P_{IN}	15	dBm	peak power of GSM signal, duty cycle 4:8

* acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses

Characteristics

Operating temperature: T = +25 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

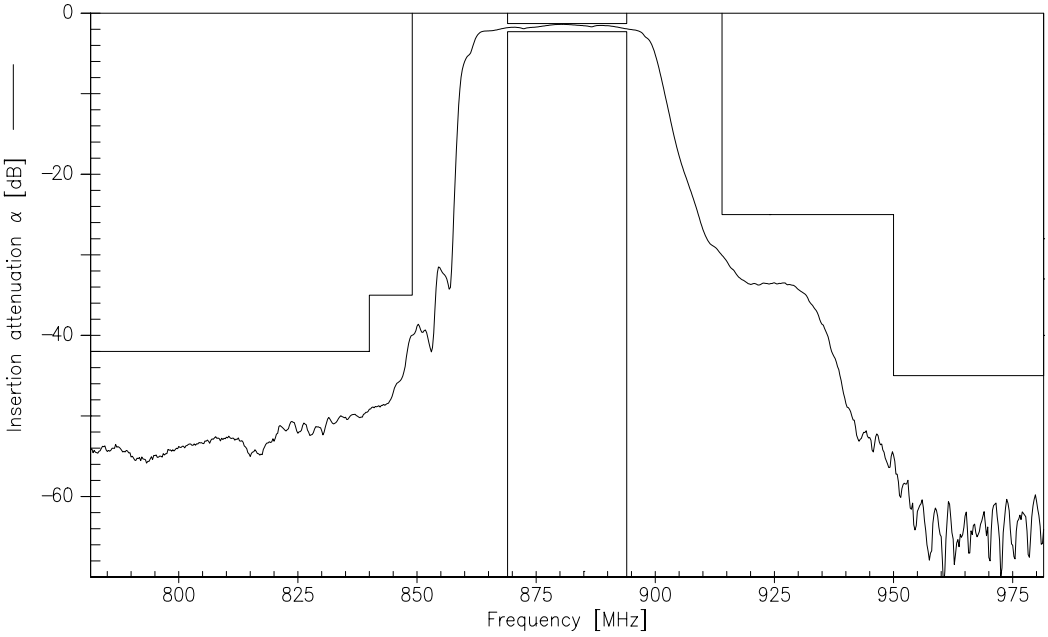
		min.	typ.	max.	
Center frequency	f_C	—	881,5	—	MHz
Maximum insertion attenuation	α_{max}				
869,0 ... 894,0 MHz		—	1,9	2,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
869,0 ... 894,0 MHz		—	0,6	0,7	dB
Input VSWR					
869,0 ... 894,0 MHz		—	1,7	2,0	
Output VSWR					
869,0 ... 894,0 MHz		—	1,7	2,0	
Attenuation	α				
0,0 ... 780,0 MHz		50	54	—	dB
780,0 ... 840,0 MHz		42	50	—	dB
840,0 ... 849,0 MHz		39	39	—	dB
914,0 ... 950,0 MHz		28	30	—	dB
950,0 ...1500,0 MHz		45	52	—	dB
1500,0 ...2200,0 MHz		40	45	—	dB
2200,0 ...3000,0 MHz		33	38	—	dB
3000,0 ...4000,0 MHz		28	32	—	dB
4000,0 ...6000,0 MHz		15	21	—	dB

Characteristics

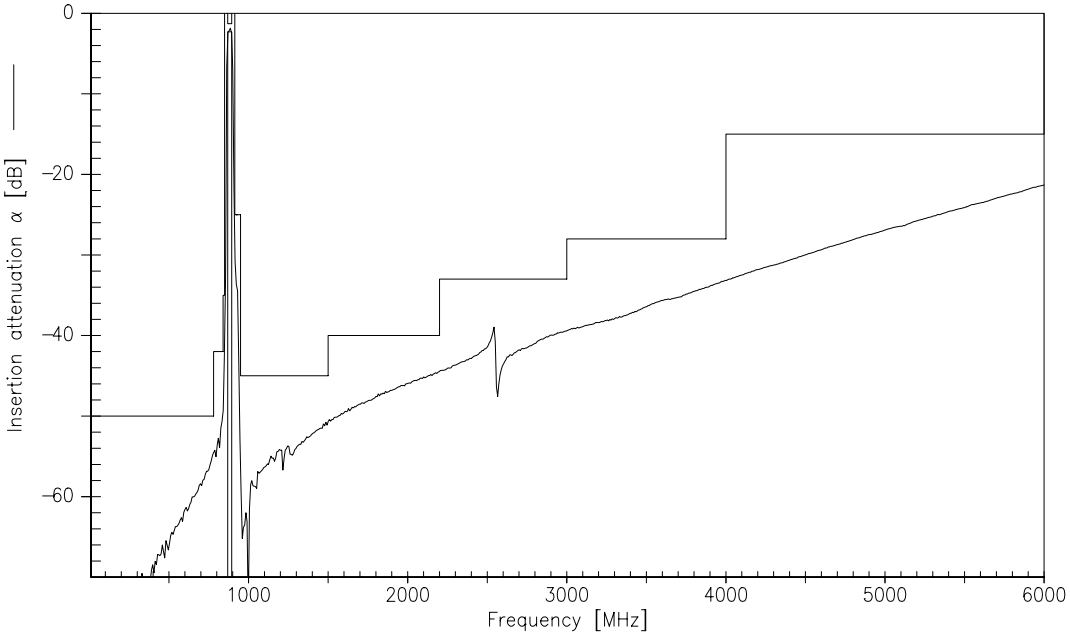
Operating temperature: T = -30 ... +85 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	881,5	—	MHz
Maximum insertion attenuation	α_{max}				
869,0 ... 894,0 MHz		—	2,0	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
869,0 ... 894,0 MHz		—	0,7	1,0	dB
Input VSWR					
869,0 ... 894,0 MHz		—	1,7	2,0	
Output VSWR					
869,0 ... 894,0 MHz		—	1,7	2,0	
Attenuation	α				
0,0 ... 780,0 MHz		50	54	—	dB
780,0 ... 840,0 MHz		42	50	—	dB
840,0 ... 849,0 MHz		35	39	—	dB
914,0 ... 950,0 MHz		25	28	—	dB
950,0 ...1500,0 MHz		45	52	—	dB
1500,0 ...2200,0 MHz		40	45	—	dB
2200,0 ...3000,0 MHz		33	38	—	dB
3000,0 ...4000,0 MHz		28	32	—	dB
4000,0 ...6000,0 MHz		15	21	—	dB

Transfer function (narrow band)



Transfer function (wideband)



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