EPCOS

SAW Components

Datasheet B9003

Datasheet

SMD

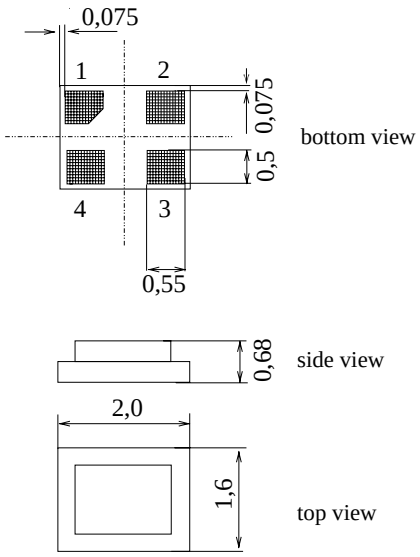
Chip sized SAW package DCS4G

Features

- Low-loss RF filter for Cell mobile telephone system, transmit path
- High counterband suppression
- Usable passband 25 MHz
- Unbalanced/unbalanced operation
- Package size: 1.6 mm x 2.0 mm (4 pin, diagonal pinning)

Terminals

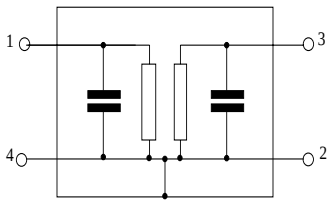
- Ni, gold-plated



Dimensions in mm, approx weight 0,007g

Pin configuration

1	Input
3	Output
2,4	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B9003	B39841-B9003-E910	C61157-A7-A105	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}	3	V	
ESD voltage	V_{ESD}*	100*	V	machine model, 10 pulses
Source Power max.				
824 - 849 MHz	P_{IN}	16	dBm	source impedance 50 Ω
elsewhere	P_{IN}	10	dBm	source impedance 50 Ω

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

Characteristics

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

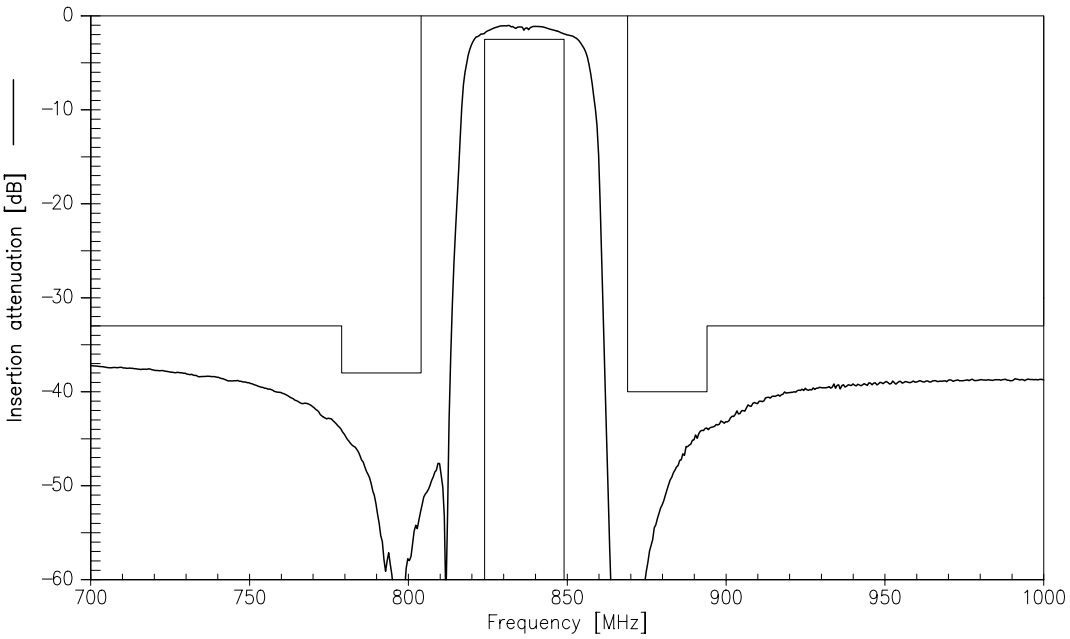
		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{max}				
824,0 ... 849,0 MHz		—	1,9	2,1	dB
Ripple	p-p				
824,0 ... 849,0 MHz		—	0,9	1,1	dB
Input return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	12	---	dB
Output return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	12	---	dB
Attenuation	α				
0,0 ... 779,0 MHz		33	36	—	dB
779,0 ... 804,0 MHz		38	43	—	dB
869,0 ... 894,0 MHz		40	43	—	dB
894,0 ...1580,0 MHz		33	37	—	dB
1580,0 ...1698,0 MHz		33	44	—	dB
1698,0 ...2547,0 MHz		30	37	—	dB

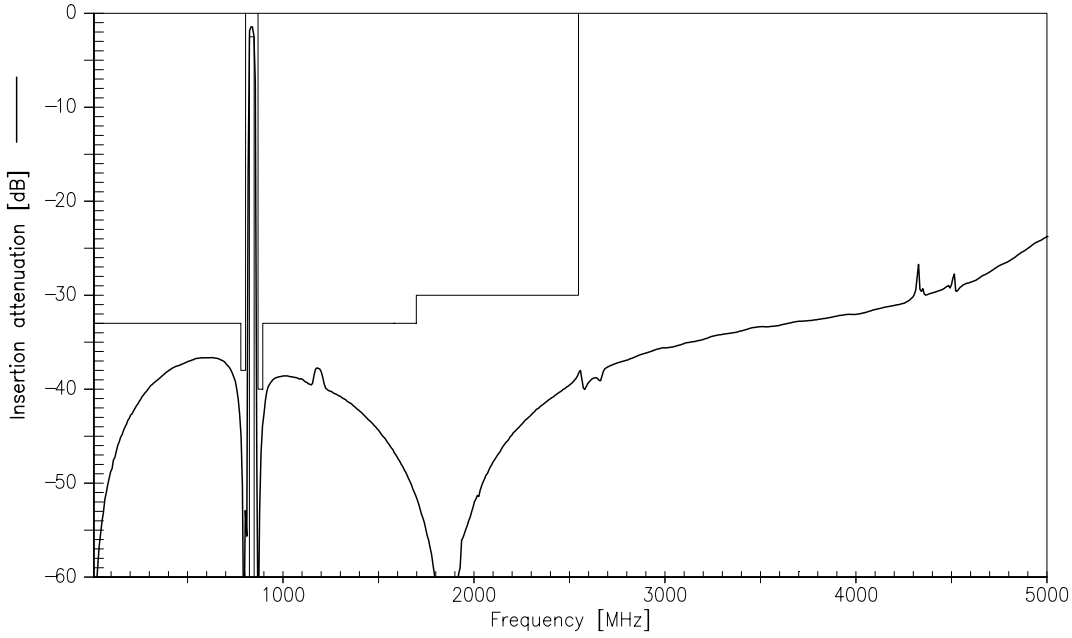
Characteristics

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

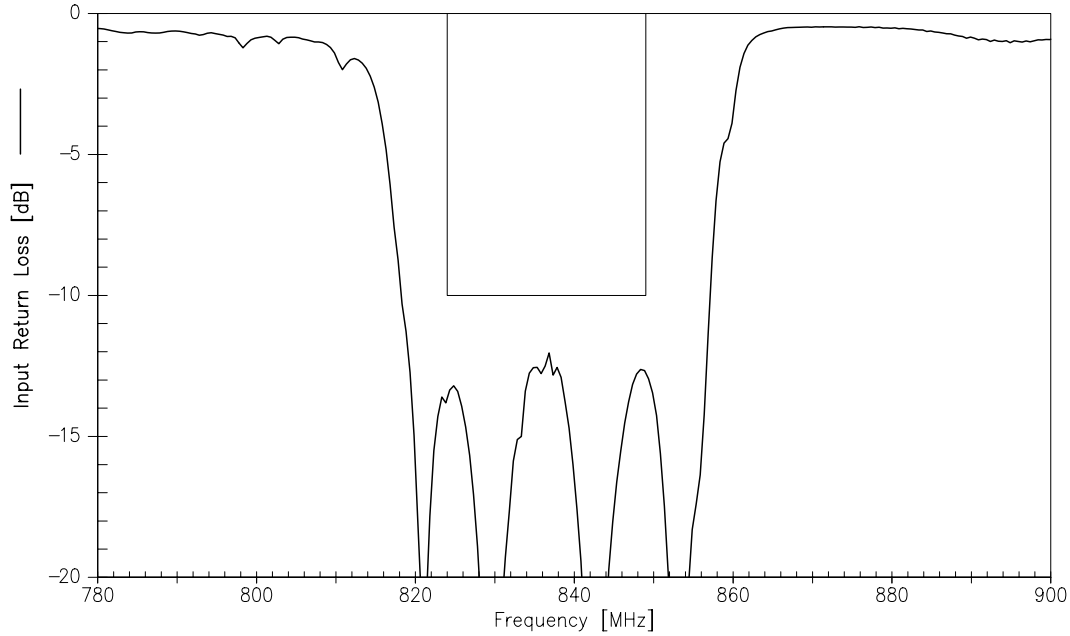
		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{max}				
824,0 ... 849,0 MHz		—	2,2	2,5	dB
Ripple	p-p				
824,0 ... 849,0 MHz		—	1,1	1,5	dB
Input return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	11,5	---	dB
Output return loss @ 50 Ohm					
824,0 ... 849,0 MHz		10	11,5	---	dB
Attenuation	α				
0,0 ... 779,0 MHz		33	36	—	dB
779,0 ... 804,0 MHz		38	43	—	dB
869,0 ... 894,0 MHz		40	43	—	dB
894,0 ...1580,0 MHz		33	37	—	dB
1580,0 ...1698,0 MHz		33	44	—	dB
1698,0 ...2547,0 MHz		30	37	—	dB

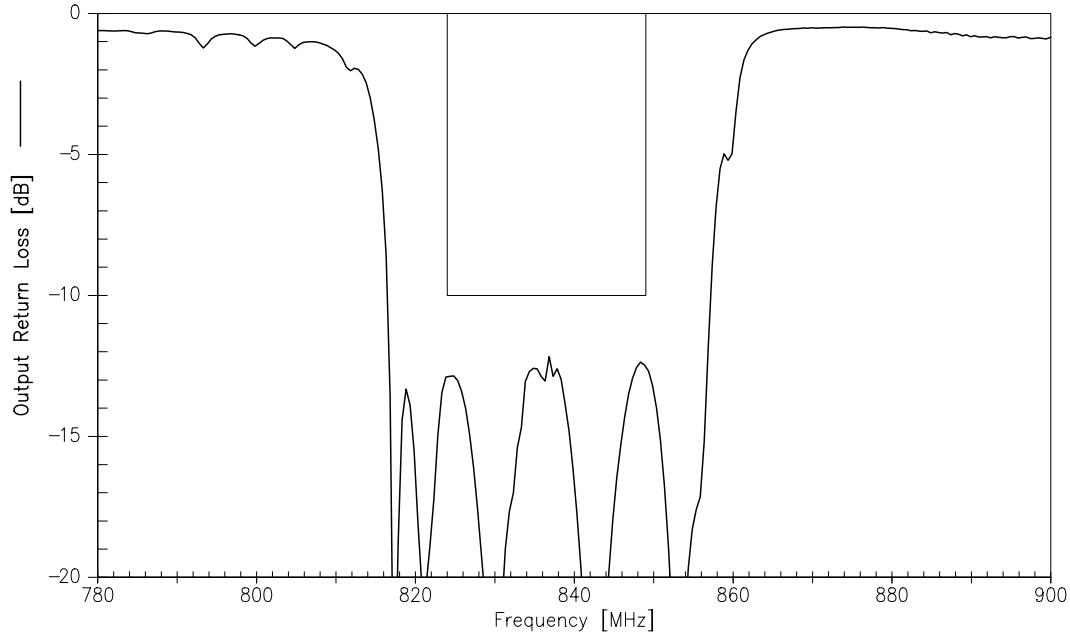
Transfer function





Input and Output Return Loss





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This brochure replaces the previous edition.

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