EPCOS

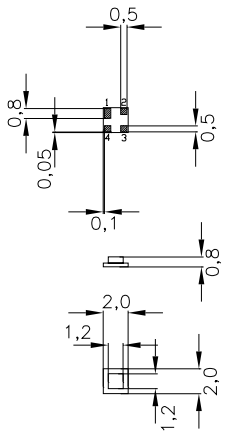
SAW Components

Data Sheet B7805

Chip sized SAW package

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- High selectivity
- Usable passband 75 MHz
- No matching network required for operation at 50 Ω
- Ceramic package for **S**urface **M**ounted **T**echnology (**SMT**)



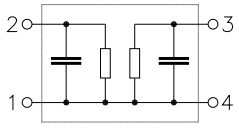
Dimensions in mm, approx. weight 0,01 g

Terminals

- Ni, gold-plated

Pin configuration

2	Input
1	Input - ground
3	Output
4	Output - ground



Type	Ordering code	Marking and Package according to	Packing according to
B7805	B39182-B7805-A510	C61157-A7-A63	F61074-V8099-Z000

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

Maximum ratings

Operable temperature range	T	– 30/+ 80	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	3	V	
Input power max.				source and load impedance 50 Ω
1710 ... 1785 MHz	P_{IN}	15	dBm	peak power of GSM signal, duty cycle 1 : 8
elsewhere		0	dBm	continuous wave

Characteristics

Operating temperature range: T = 25 +- 2˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency		f_c	—	1842,5	—	MHz
Maximum insertion attenuation		α_{max}				
	1805,0 ...1880,0 MHz		—	2,6	3,1	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	1805,0 ...1880,0 MHz		—	1,0	1,5	dB
Input VSWR						
	1805,0 ...1880,0 MHz		—	1,8	2,0	
Output VSWR						
	1805,0 ...1880,0 MHz		—	1,8	2,0	
Attenuation		α				
	10,0 ... 500,0 MHz		19,0	20,0	—	dB
	500,0 ...1200,0 MHz		17,5	18,5	—	dB
	1200,0 ...1705,0 MHz		19,0	20,0	—	dB
	1705,0 ...1785,0 MHz		18,0	21,0	—	dB
	1920,0 ...1980,0 MHz		18,0	30,0	—	dB
	1980,0 ...2700,0 MHz		23,0	26,0	—	dB
	2700,0 ...3840,0 MHz		15,0	17,0	—	dB
	3840,0 ...6000,0 MHz		13,0	16,0	—	dB

Characteristics

Operating temperature range: T = -10 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

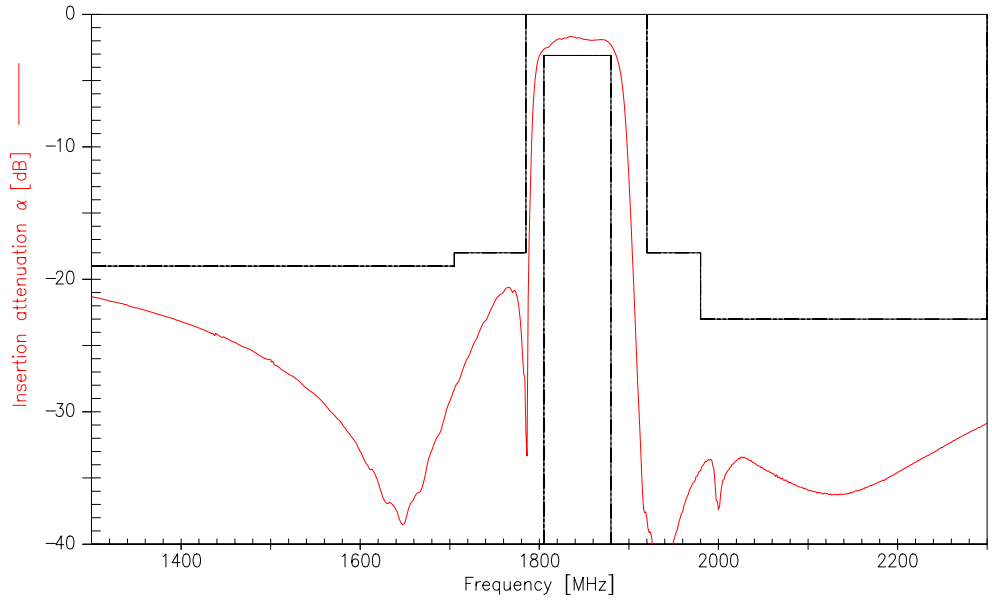
		min.	typ.	max.	
Center frequency	f_c	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ...1880,0 MHz		—	3,1	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ...1880,0 MHz		—	1,5	1,9	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	1,9	2,1	
Output VSWR					
1805,0 ...1880,0 MHz		—	1,9	2,1	
Attenuation	α				
10,0 ... 500,0 MHz		19,0	20,0	—	dB
500,0 ...1200,0 MHz		17,5	18,5	—	dB
1200,0 ...1705,0 MHz		19,0	20,0	—	dB
1705,0 ...1785,0 MHz		10,0	16,0	—	dB
1920,0 ...1980,0 MHz		10,0	25,0	—	dB
1980,0 ...2700,0 MHz		23,0	26,0	—	dB
2700,0 ...3840,0 MHz		15,0	17,0	—	dB
3840,0 ...6000,0 MHz		13,0	16,0	—	dB

Characteristics

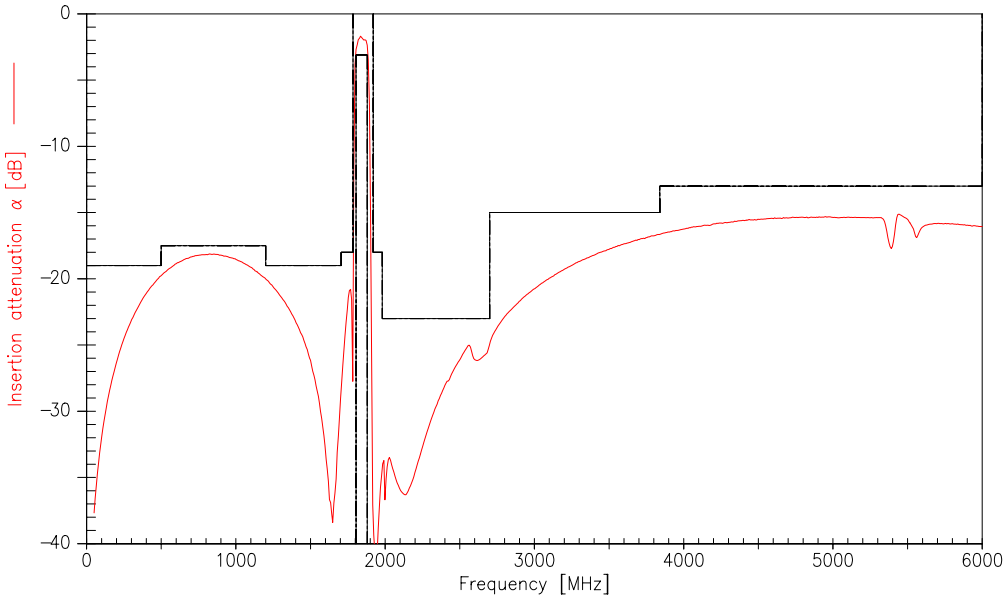
Operating temperature range: T = -30 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_c	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ...1880,0 MHz		—	3,3	3,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ...1880,0 MHz		—	1,7	2,1	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Attenuation	α				
10,0 ... 500,0 MHz		19,0	20,0	—	dB
500,0 ...1200,0 MHz		17,5	18,5	—	dB
1200,0 ...1705,0 MHz		19,0	20,0	—	dB
1705,0 ...1785,0 MHz		8,0	14,0	—	dB
1920,0 ...1980,0 MHz		10,0	25,0	—	dB
1980,0 ...2700,0 MHz		23,0	26,0	—	dB
2700,0 ...3840,0 MHz		15,0	17,0	—	dB
3840,0 ...6000,0 MHz		13,0	16,0	—	dB

Transfer function (spec for 25˚C)



Transfer function (wideband)



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This brochure replaces the previous edition.

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