EPCOS

SAW Components

Data Sheet B7805

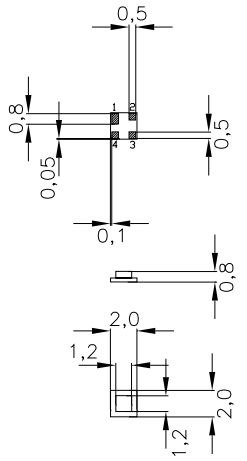
Chip sized SAW package

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**)

Terminals

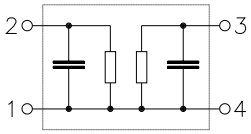
- Ni, gold-plated



Dimensions in mm, approx. weight 0,01 g

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

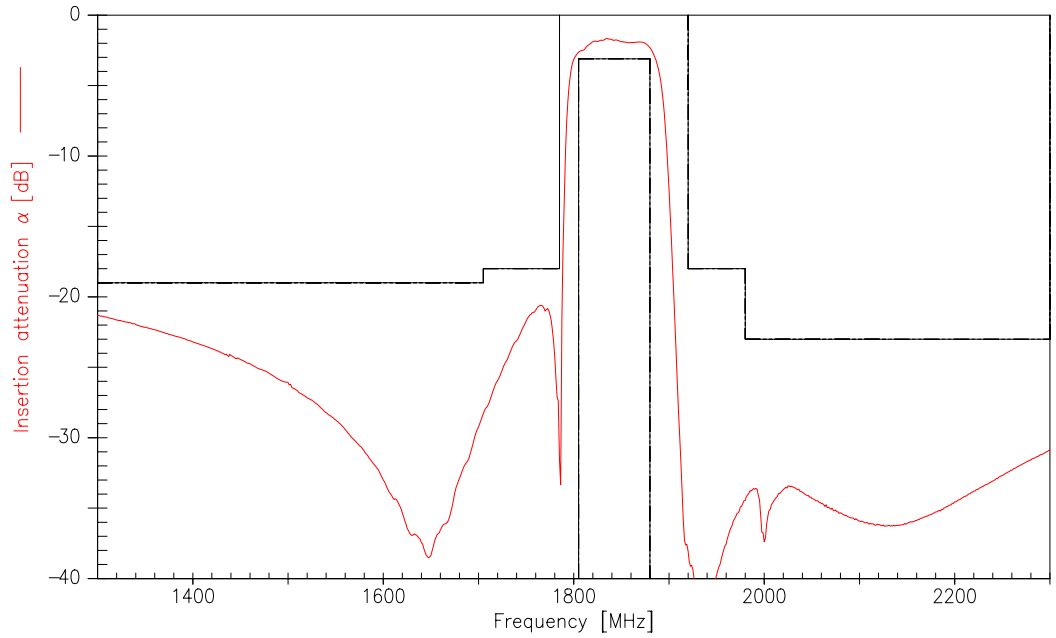
				min.	typ.	max.	
Center frequency			f_c	—	1842,5	—	MHz
Maximum insertion attenuation			α_{max}				
	1805,0	...1880,0	MHz	—	3,1	3,5	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1880,0	MHz	—	1,5	1,9	dB
Input VSWR							
	1805,0	...1880,0	MHz	—	1,9	2,1	
Output VSWR							
	1805,0	...1880,0	MHz	—	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

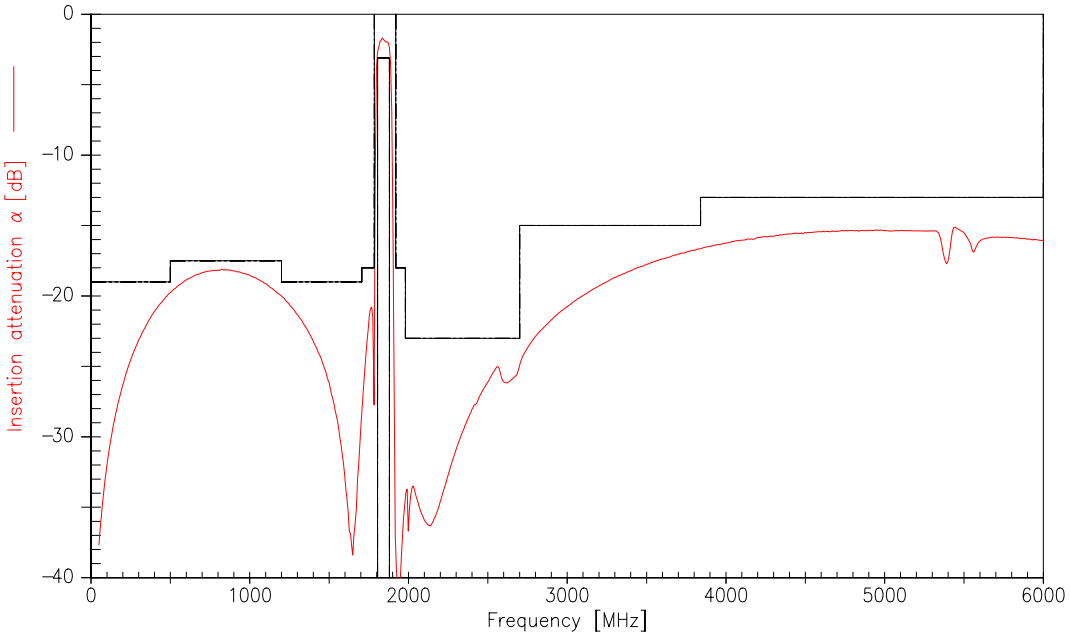
Operating temperature range: T = -30 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			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)



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, D-81617 München

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.