EPCOS

SAW Components

Data Sheet B3829

Data Sheet

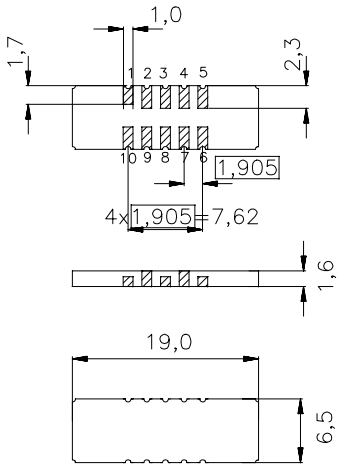
Ceramic package **DCC18**

Features

- Low-loss IF filter for GSM base stations
- Temperature stable
- Balanced or unbalanced operation
- Ceramic SMD package

Terminals

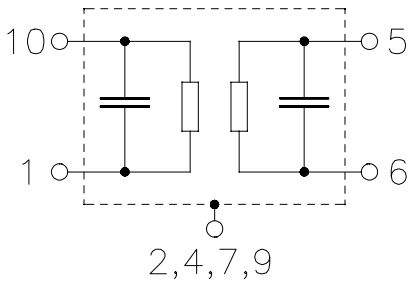
- Gold plated



Dimensions in mm, approx. weight 0,8 g

Pin configuration

10	Input
1	Input ground or balanced input
5	Output
6	Output ground or balanced output
3, 8	Ground
2, 4, 7, 9	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3829	B39870-B3829-U210	C61157-A7-A54	F61074-V8069-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}	0	V	
Source power	P_s	10	dBm	

Data Sheet

Characteristics

Operating temperature: T = -5 .. +85 ˚C

Terminating source impedance: Z_S=50 or 200 Ω and matching network

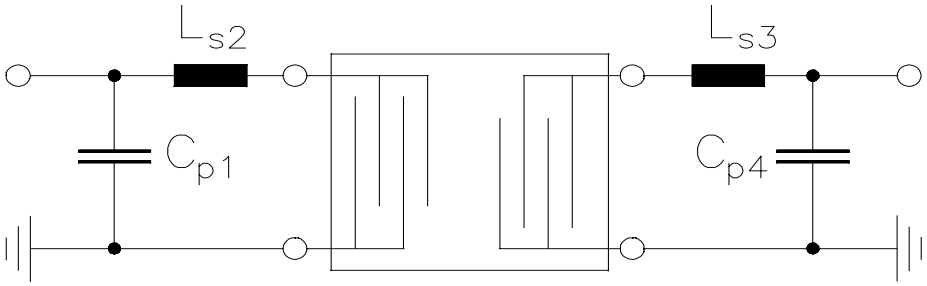
Terminating load impedance: Z_S=50 or 200 Ω and matching network

			min.	typ.	max.	
Nominal frequency		f_N	—	87,0	—	MHz
Minimum insertion attenuation (including matching network)		α_{min}	—	4,7	7,0	dB
Passband width	$\alpha_{rel} \leq 3$ dB	B_{3dB}	—	330	—	kHz
Amplitude ripple (p-p)	$f_N \pm 75$ kHz	$\Delta\alpha$	—	0,3	1,0	dB
Absolute group delay (at f_N)		τ	—	2,1	2,4	µs
Group delay ripple (p-p)	$f_N \pm 75$ kHz	$\Delta\tau$	—	250	350	ns
Relative attenuation (relative to α_{min})		α_{rel}				
$f_N \pm 200$ kHz ... $f_N \pm 400$ kHz			3,5	5	—	dB
$f_N \pm 400$ kHz ... $f_N \pm 600$ kHz			20	30	—	dB
$f_N \pm 600$ kHz ... $f_N \pm 800$ kHz			25	30	—	dB
$f_N \pm 800$ kHz ... $f_N \pm 1600$ kHz			28	35	—	dB
30,00 MHz ... f_N - 1,60 MHz			34	45	—	dB
f_N + 1,60 MHz ... 180,00 MHz			34	45	—	dB
180 MHz ... 2000,00 MHz			50	60	—	dB
Input and output return loss			12	15	—	dB
Temperature coefficient of frequency [1]		TC_f	—	–0,036	—	ppm/K²
Turnover temperature		T_0	—	45	—	˚C

[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Matching network to 50 Ω

(Element values depend upon PCB layout)



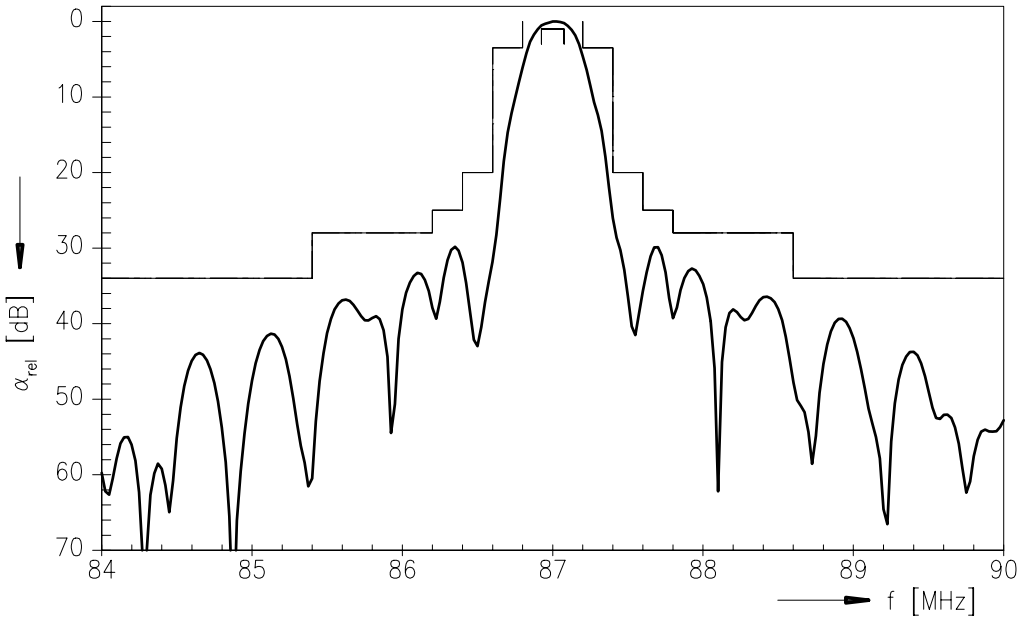
C_{p1} = 56 pF

L_{s2} = 150 nH

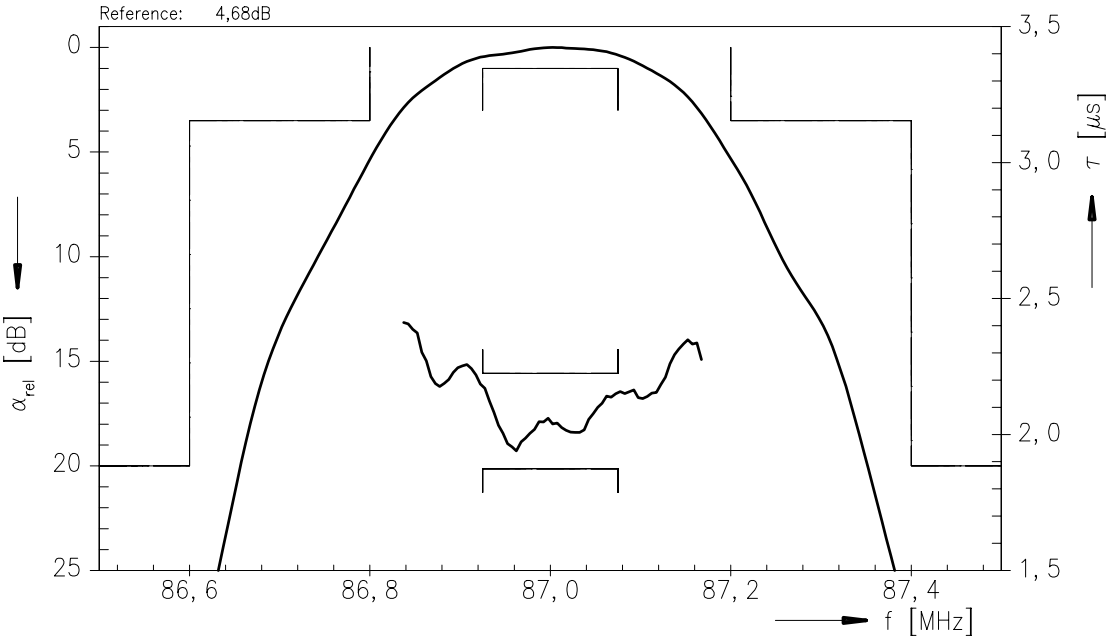
L_{s3} = 150 nH

C_{p4} = 56 pF

Normalized frequency response



Normalized frequency response (pass band)



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC IS
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.