EPCOS

SAW Components

Data Sheet B3687

Data Sheet

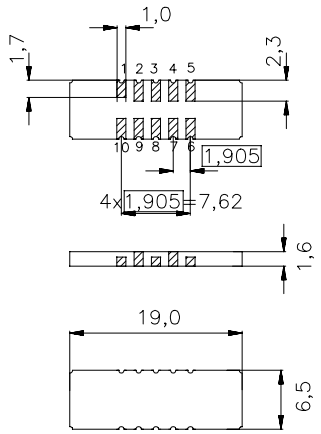
Ceramic package **DCC18**

Features

- Low-loss IF filter for basestation
- Channel selection in PCS, DCS systems
- Hermetically sealed ceramic SMD package

Terminals

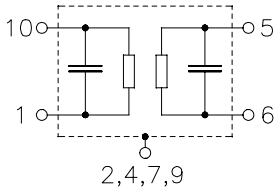
- Gold-plated



Dimensions in mm, approx. weight 0,8 g

Pin configuration

10	Input
1	Input ground
5	Output
6	Output ground
2,4,7,9	Case – ground
3,8	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B3687	B39201-B3687-U210	C61157-A7-A54	F61074-V8069-Z000

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

Maximum ratings

Operable temperature range	T_A	– 30/+ 85	˚C	
Storage temperature range	T_{stg}	– 30/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

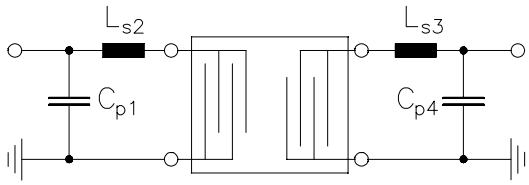
Characteristics

Operating temperature range: T_A = 0 - 70 °C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	199,0	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	7,0	9,0	dB
Passband width $\alpha_{rel} \leq 1$ dB	$B_{1,0dB}$	—	0,22	—	MHz
Amplitude ripple in passband	$\Delta\alpha_{rel}$				
198,93 ... 199,07 MHz		—	0,5	2,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
198,93 ... 199,07 MHz		—	1,0	1,8	µs
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 200$ kHz ... $f_N \pm 300$ kHz		3	10	—	dB
$f_N \pm 300$ kHz ... $f_N \pm 400$ kHz		11	15	—	dB
$f_N \pm 400$ kHz ... $f_N \pm 700$ kHz		20	35	—	dB
$f_N \pm 700$ kHz ... $f_N \pm 1600$ kHz		30	40	—	dB
$f_N \pm 1600$ kHz ... $f_N \pm 3000$ kHz		40	50	—	dB
$f_N \pm 3000$ kHz ... $f_N \pm 6000$ kHz		40	50	—	dB
$f_N \pm 6000$ kHz ... $f_N \pm 35000$ kHz		40	50	—	dB
Temperature coefficient of frequency [1]	TC_f	—	– 0,036	—	ppm/K²
Turnover temperature	T_0	—	30	—	°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 on pcb layout)



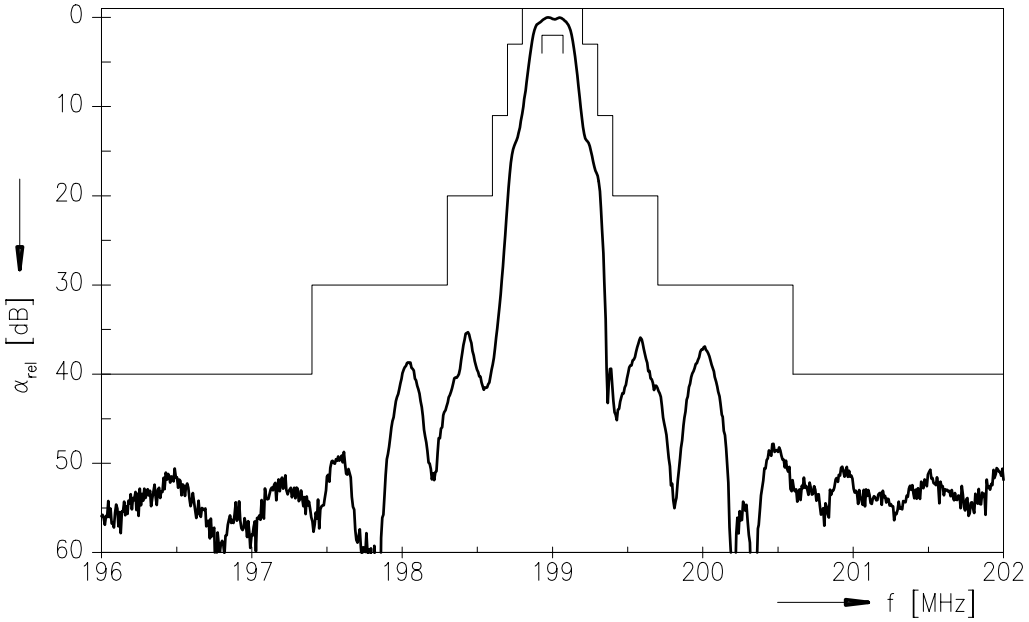
C_{p1} = 27 pF

L_{s2} = 39 nH

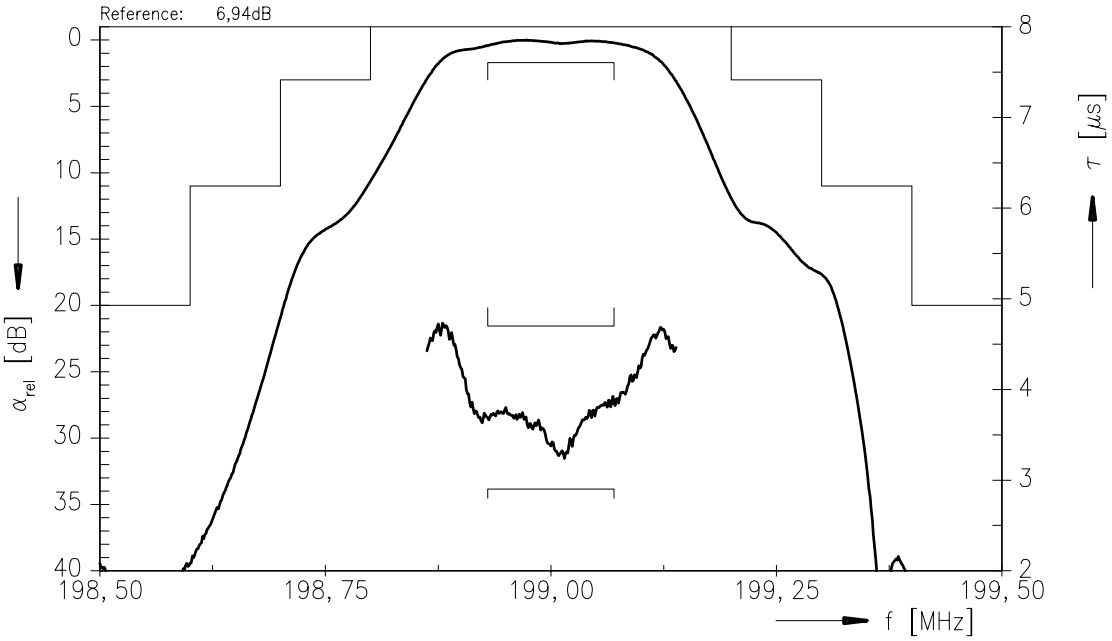
L_{s3} = 47 nH

C_{p4} = 27 pF

Frequency response



Frequency response



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