SAW filters for infrastructure systems

Series/Type: B3873

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39241B3873U210		2012-01-13	2012-12-31	2013-03-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Low-Loss Filter **240,0 MHz**

Data Sheet

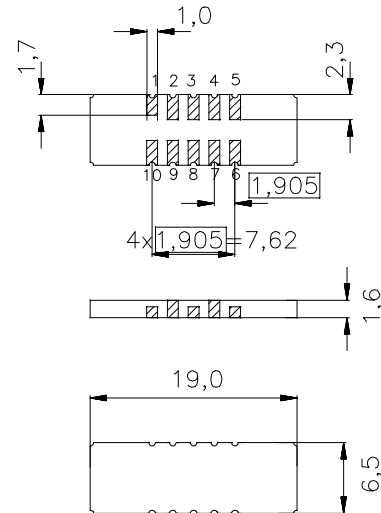Ceramic package **DCC18**

Dimensions in mm, approx. weight 0,7 g

Features

● High performance IF bandpass filter
● Temperature stable
● Hermetically sealed ceramic package

Terminals

● Gold plated

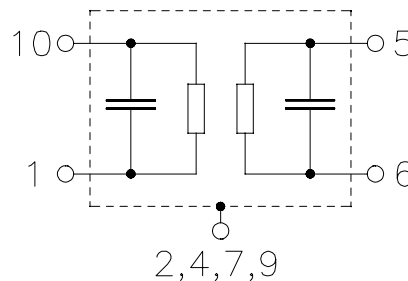## Pin configuration

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

Type	Ordering code	Marking and Package according to	Packing according to
B3873	B39241-B3873-U210	C61157-A7-A54	F61074-V8166-Z000

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

Maximum ratings

Operable temperature range	T	-40/ +85	˚C	
Storage temperature range	T_{stg}	-40/ +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	0	dBm	

Low-Loss Filter — **240,0 MHz**

Data Sheet

Characteristics

Operating temperature: T = -10..+85 °C

Terminating source impedance: Z_S=50 Ω and matching network

Terminating load impedance: Z_S=50 Ω and matching network

			min.	typ.	max.	
Nominal frequency		f_N	—	240,0	—	MHz
Minimum insertion attenuation (including matching network)		α_{min}	12,0	14,0	16,0	dB
Passband width	$\alpha_{rel} \leq 1$ dB	B_{1dB}	1,1	1,25	—	MHz
Amplitude ripple (p-p)		$\Delta\alpha$				
	$f_N \pm 0{,}55$ MHz		—	0,7	1,0	dB
Absolute group delay (at f_N)		τ	—	1,8	3,5	µs
Group delay ripple (p-p)	$f_N \pm 0{,}55$ MHz	$\Delta\tau$	—	120	200	ns
Deviation of linear phase (p-p)		$\Delta\varphi$				
	$f_N \pm 0{,}55$ MHz		—	5	6	°
Relative attenuation (relative to α_{min})		α_{rel}				
$f_N \pm$ 0,9 MHz ... $f_N \pm$ 1,25 MHz			10	15	—	dB
$f_N \pm$ 1,25 MHz ... $f_N \pm$ 1,7 MHz			25	30	—	dB
$f_N \pm$ 1,7 MHz ... $f_N \pm$ 1,9 MHz			32	35	—	dB
$f_N \pm$ 1,9 MHz ... $f_N \pm$ 2,5 MHz			35	40	—	dB
$f_N \pm$ 2,5 MHz ... $f_N \pm$ 7,0 MHz			38	42	—	dB
$f_N \pm$ 7,0 MHz ... $f_N \pm$ 70 MHz			40	45	—	dB
Input and output return loss			12	17	—	dB
Temperature coefficient of frequency [1]		TC_f	—	– 0,036	—	ppm/K^2
Turnover temperature		T_0	—	40	—	°C

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

Data Sheet

Matching network to 50 Ω

(Element values depend upon PCB layout)
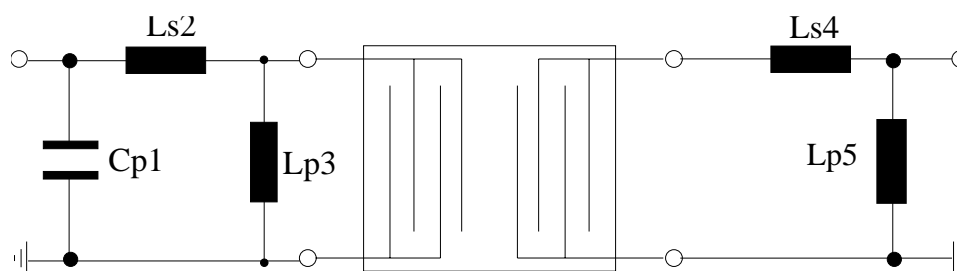
C_{p1} = 15 pF L_{s4} = 10 nH

L_{s2} = 27 nH L_{p5} = 10 nH

L_{p3} = 7,8 nH

Normalized frequency response
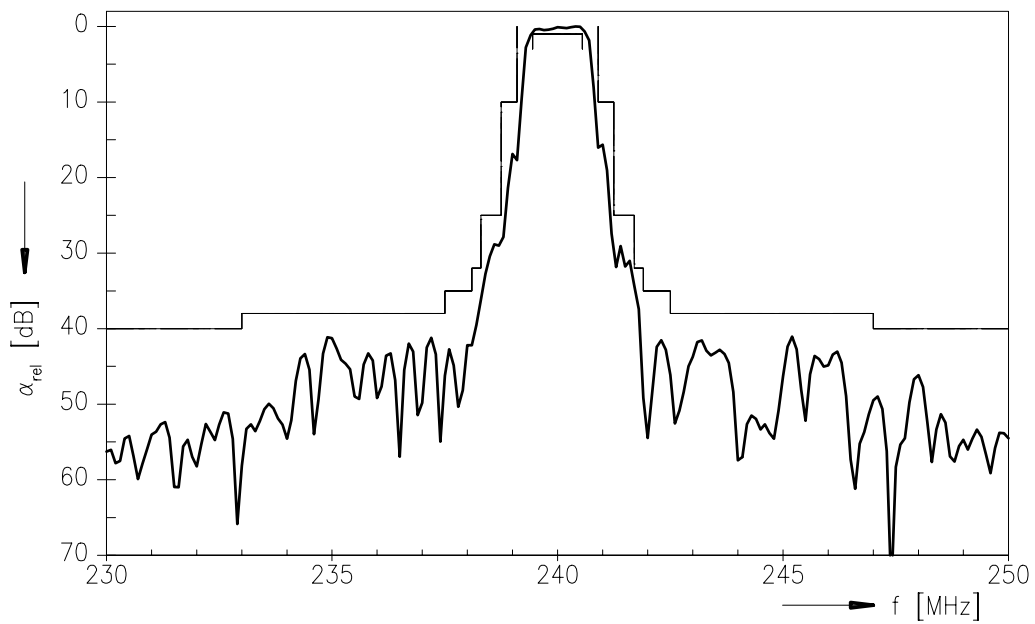
Normalized frequency response (pass band)
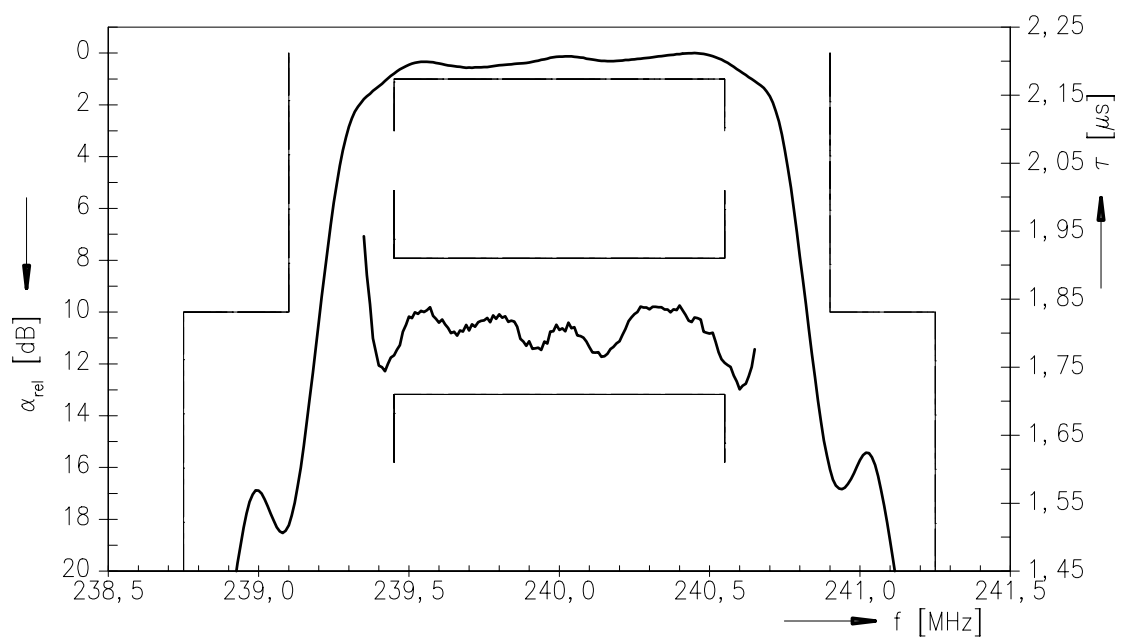
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This brochure replaces the previous edition.

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