# imall

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## SAW filters for infrastructure systems

### Series/Type: B3873

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product		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.

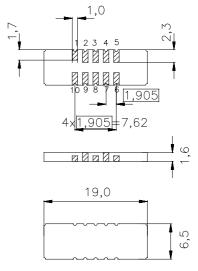
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### **☆TDK**

SAW Components	B3873
Low-Loss Filter	240,0 MHz
Data Sheet	

#### Ceramic package DCC18



Dimensions in mm, approx. weight 0,7 g

#### **Pin configuration**

Features

Terminals

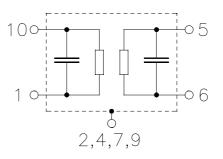
Gold plated

• Temperature stable

• High performance IF bandpass filter

• Hermetically sealed ceramic package

Input
Input ground
Output
Output ground
Ground
Case ground



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

Electrostatic Sensitive Device (ESD)

#### **Maximum ratings**

Operable temperature range	Т	-40/ +85	°C
Storage temperature range	T <sub>stg</sub>	-40/ +85	°C
DC voltage	V <sub>DC</sub>	0	V
Source power	Ps	0	dBm



Nov 06, 2002

### **⇔TDK**

SAW Components					B3873
Low-Loss Filter				<b>240</b> ,	,0 MHz
Data Sheet					
Characteristics					
Operating temperature:	T = -10+8	5°C			
1 5 1	$Z_{\rm S}$ =50 Ω an		a network		
	 Z <sub>S</sub> =50 Ω an		-		
	_5-00 II all		gnothon		
		min.	typ.	max.	
Nominal frequency	f <sub>N</sub>	—	240,0	—	MHz
Minimum insertion attenuation (including matching network)	$lpha_{min}$	12,0	14,0	16,0	dB
Passband width $\alpha_{rel} \leq 1 \ dB$	B <sub>1dB</sub>	1,1	1,25	—	MHz
<b>Amplitude ripple</b> (p-p) $f_{\rm N} \pm 0,55$ MH	Δα Iz	_	0,7	1,0	dB
Absolute group delay (at $f_N$ )	τ	—	1,8	3,5	μs
<b>Group delay ripple</b> (p-p) $f_{\rm N} \pm 0.55$ MHz	z Δτ	_	120	200	ns
Deviation of linear phase (p-p) $f_{\rm N} \pm 0,55~{\rm MHz}$	Δφ <u>z</u>	_	5	6	o
$\begin{array}{cccccc} \text{Relative attenuation (relative to $\alpha_{min}$)} \\ f_N \pm 0.9 & \text{MHz} & & f_N \pm 1.25 & \text{MH} \\ f_N \pm 1.25 & \text{MHz} & & f_N \pm 1.7 & \text{MH} \\ f_N \pm 1.7 & \text{MHz} & & f_N \pm 1.9 & \text{MH} \\ f_N \pm 1.9 & \text{MHz} & & f_N \pm 2.5 & \text{MH} \\ f_N \pm 2.5 & \text{MHz} & & f_N \pm 7.0 & \text{MH} \\ f_N \pm 7.0 & \text{MHz} & & f_N \pm 70 & \text{MH} \\ \end{array}$	z z z z	10 25 32 35 38 40 12	15 30 35 40 42 45 17		dB dB dB dB dB dB
Temperature coefficient of frequency <sup>1)</sup> Turnover temperature	TC <sub>f</sub> T <sub>0</sub>	_	- 0,036 40		ppm/K <sup>2</sup> °C

<sup>1)</sup> Temperature dependance of  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$ 

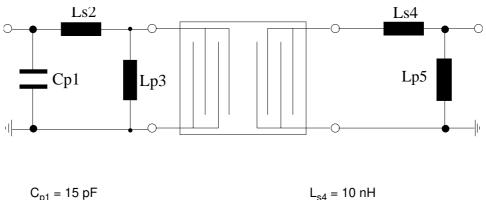
### 公TDK

SAW Components	B3873
Low-Loss Filter	240,0 MHz

Data Sheet

#### Matching network to 50 $\Omega$

(Element values depend upon PCB layout)



C <sub>p1</sub> = 15 pF	L <sub>s4</sub> = 10 nH
L <sub>s2</sub> = 27 nH	L <sub>p5</sub> = 10 nH
L <sub>p3</sub> = 7,8 nH	

4

### **公TDK**

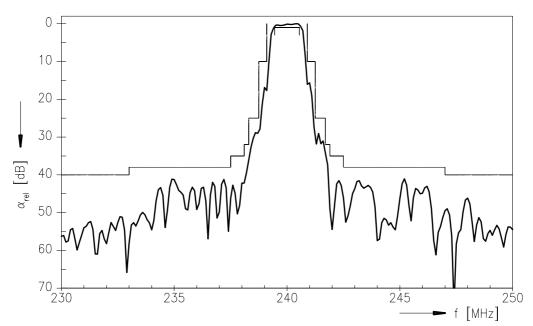
SAW Components

Low-Loss Filter

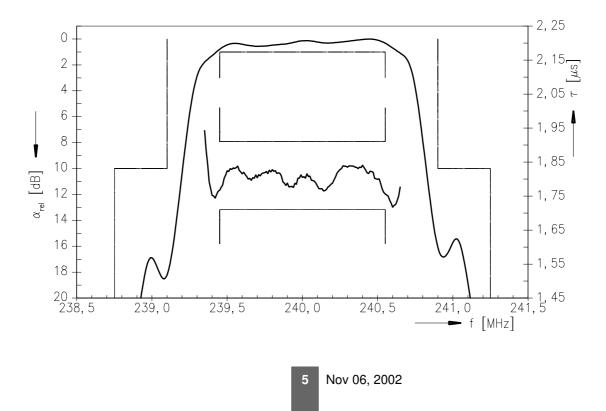
B3873 240,0 MHz

Data Sheet

#### Normalized frequency response



#### Normalized frequency response (pass band)



### **公TDK**

SAW Components	B3873
Low-Loss Filter	240,0 MHz

**Data Sheet** 

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This brochure replaces the previous edition.

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

