



## Microwave Ceramics Filter

2-pole filter for GPS

<b>Series/Type:</b>	<b>S2D2/3/7</b>
<b>Ordering code:</b>	<b>B69812N1577C403</b>
Date:	2009-02-06
Version:	C

## Data sheet

## Modification

A		14.05.03	Leitner
B	Soldering requirements	03.03.04	Freising
C	Upgraded to new form	03.12.09	Reichel

## Applications

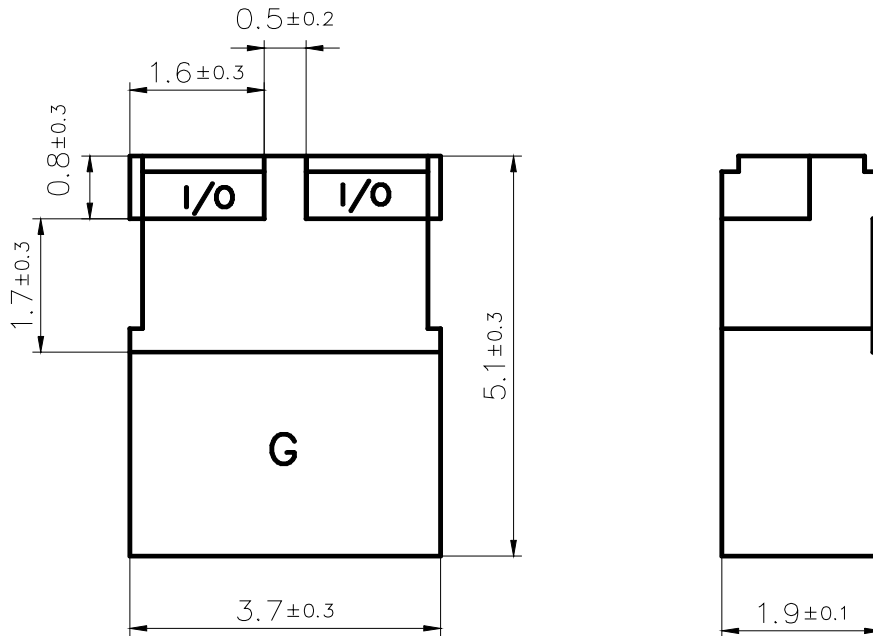
- GPS filter

## Features

- SMD filter consisting of coupled resonators with stepped impedances
- (NdBa)TiO<sub>3</sub> ( $\epsilon_r = 88/TC_f = 0 \pm 10$  ppm/K) with a coating of copper (10  $\mu\text{m}$ ) and tin (>5  $\mu\text{m}$ )
- Excellent reflow solderability, no migration effect due to copper/tin metallization

Data sheet

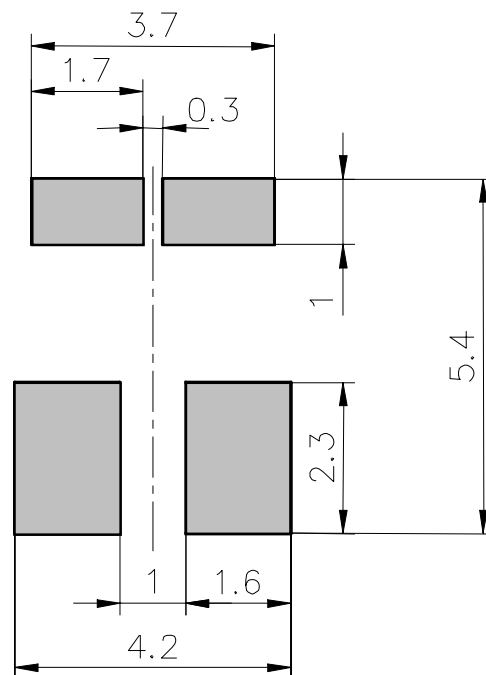
Component drawing



View from below onto the solder terminals and view from beside

Marking: 'EPCOS logo, DC', on top of the filter

Recommended footprint



Data sheet

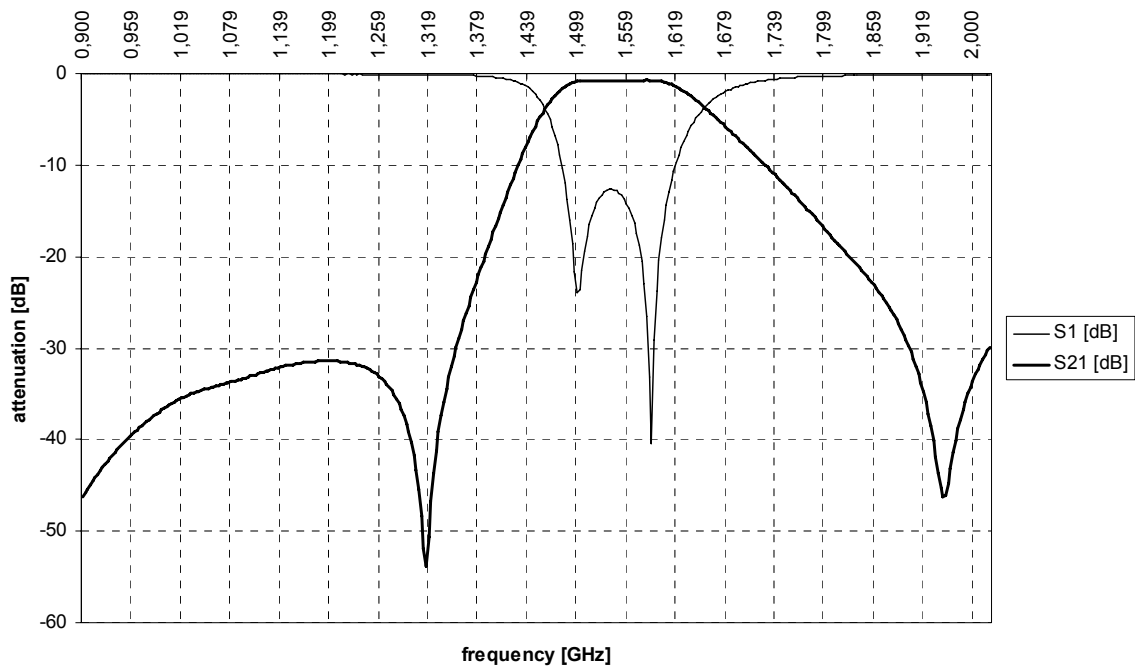
Characteristics

		min.	typ.	max.	
Center frequency	$f_c$	–	1575	–	MHz
Insertion loss	$\alpha_{IL}$		0.65	0.9	dB
Passband	B	3			MHz
Amplitude ripple (peak – peak)	$\Delta\alpha$			0.5	dB
Standing wave ratio	SWR		1.2	1.8	
Impedance	Z		50		$\Omega$
Attenuation	$\alpha$	at 900 MHz	20		dB
		at 1850 to 1990 MHz	20		dB

Maximum ratings

IEC climatic category (IEC 68-1)		–40 °C/+90 °C/56	
Operating temperature	$T_{op}$	–30/+85	°C

Typical passband characteristic



Data sheet

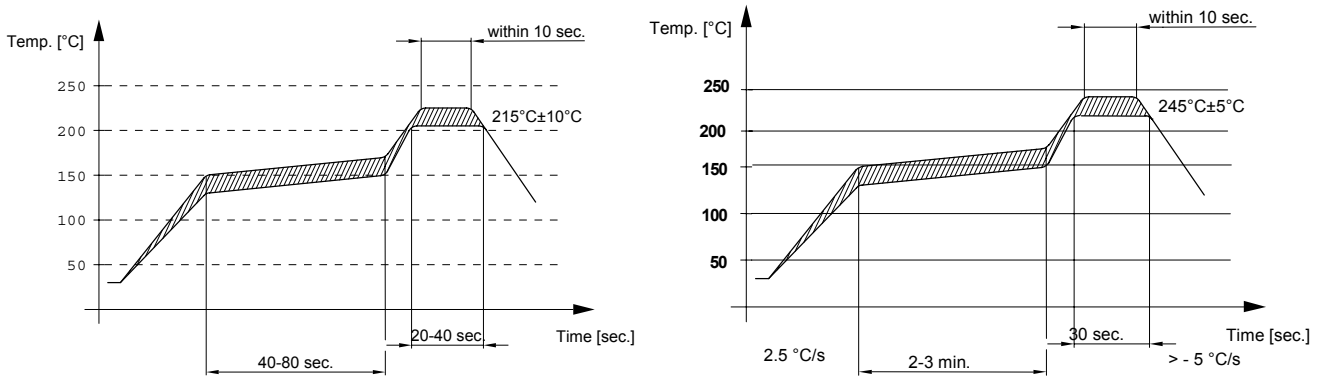
Processing information

- Wettability acc. to IEC 68-2-58:  $\geq 75\%$  (after aging)

Soldering requirements

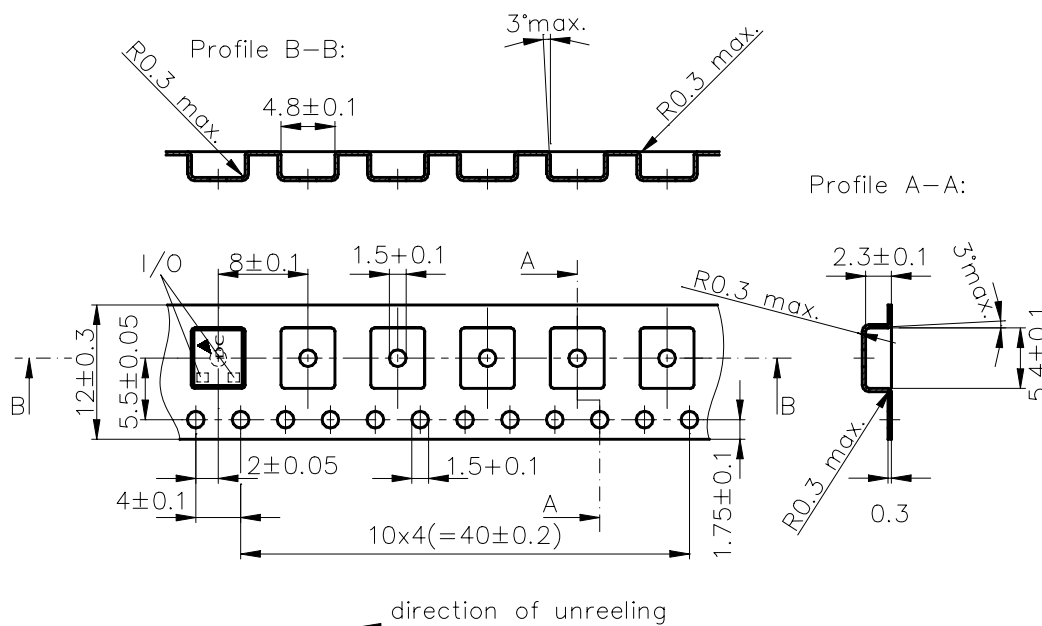
	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	$^{\circ}\text{C}$ $^{\circ}\text{C}$

Recommended soldering conditions (infrared):



Delivery mode

- Blister tape acc. to IEC 286-3, polyester, grey
- Pieces/tape: 3000



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