



Microwave Ceramics Filter

2-pole filter for GPS

Series/Type: S2S3/2
Ordering code: B69812N1577B403
Date: 2009-12-03
Version: D

Data sheet

Modification

A		16.05.03	Leitner
B	Processing information	03.03.04	Freising
C	Footprint updated	17.04.09	Reichel
D	Upgraded to new form	03.12.09	Reichel

Applications

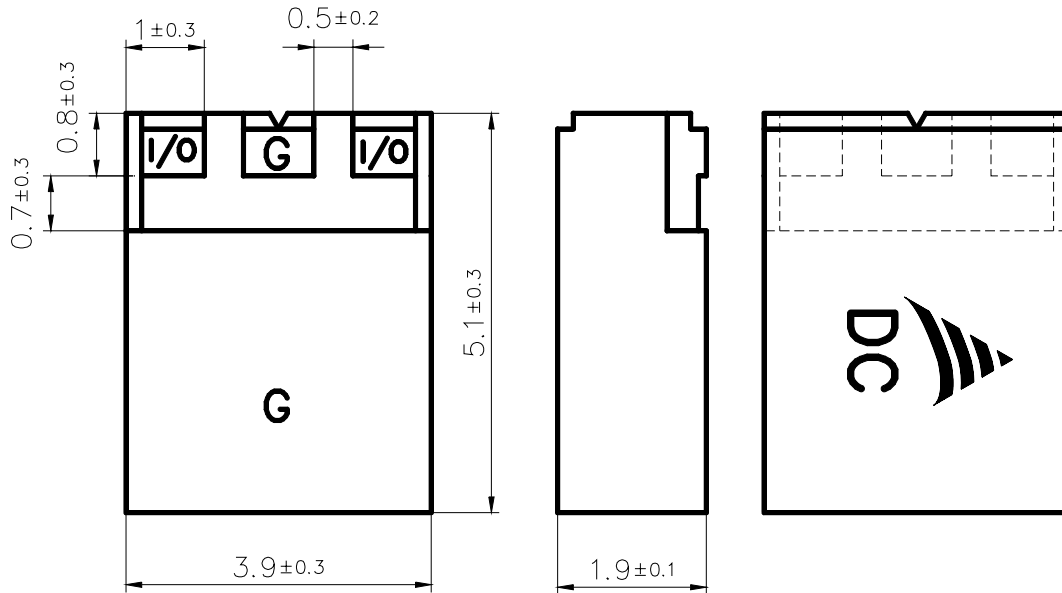
- GPS filter

Features

- SMD filter consisting of coupled resonators with stepped impedances
- (NdBa)TiO₃ ($\epsilon_r = 88/TC_f = 0 \pm 10$ ppm/K) with a coating of copper (10 μm) and tin (>5 μm)
- Excellent reflow solderability, no migration effect due to copper/tin metallization

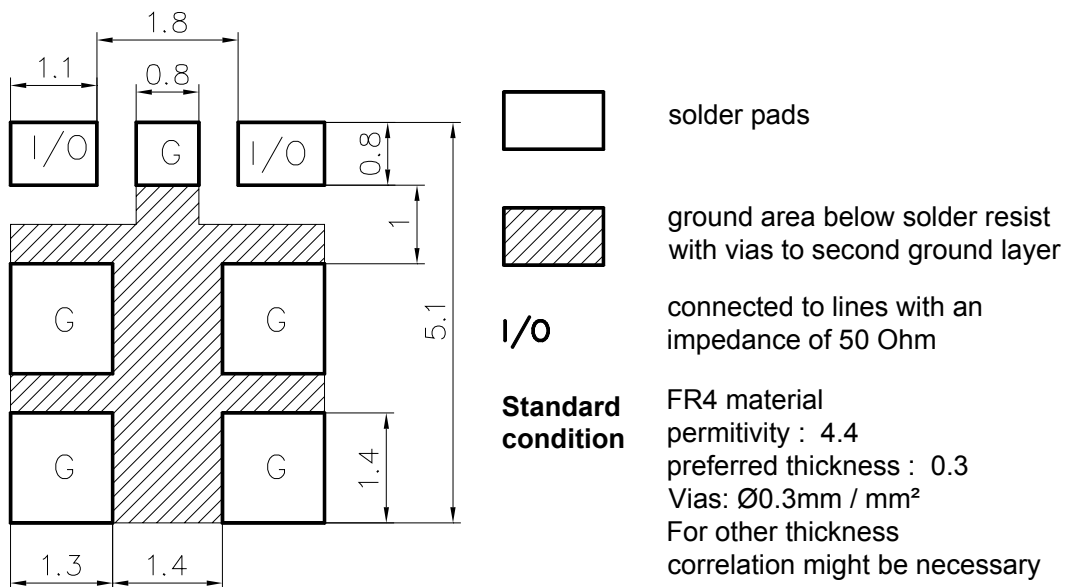
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Component drawing



View from below onto the solder terminals and view from beside

Recommended footprint



Data sheet

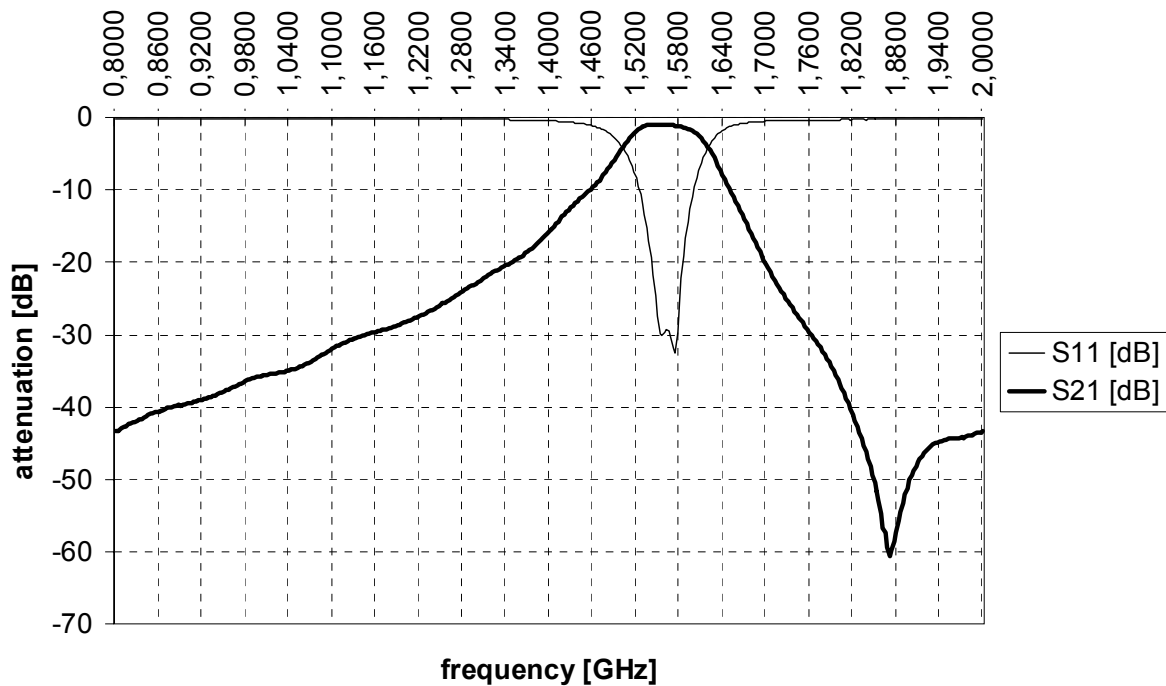
Characteristics

		min.	typ.	max.	
Center frequency	f_c	–	1575	–	MHz
Insertion loss	$\alpha_{ L}$		0.8	1.2	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		Ω
Attenuation	α	< 900 MHz	38	40	dB
		at 1850 to 1990 MHz	38	40	dB
		at 2100 to 4000 MHz	20	22	dB

Maximum ratings

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

Typical passband characteristic



Data sheet

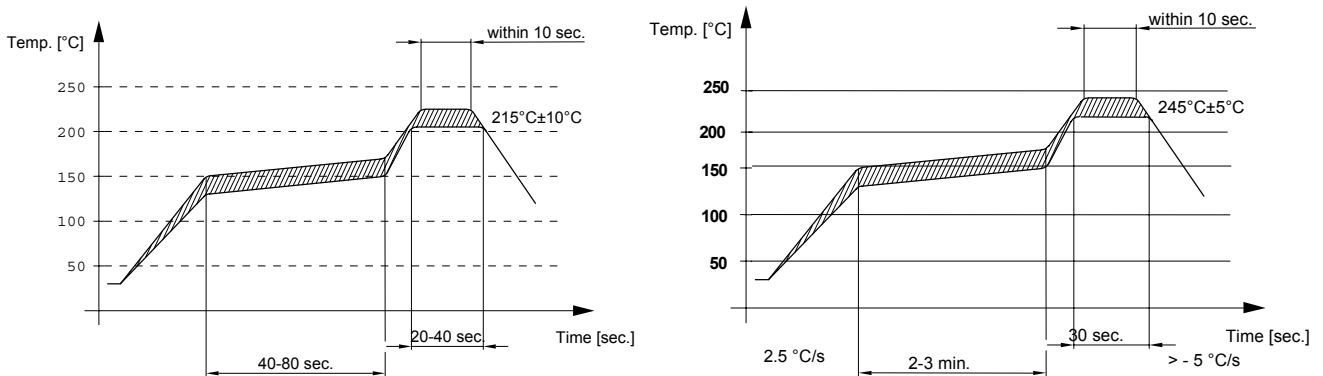
Processing information

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

Soldering requirements

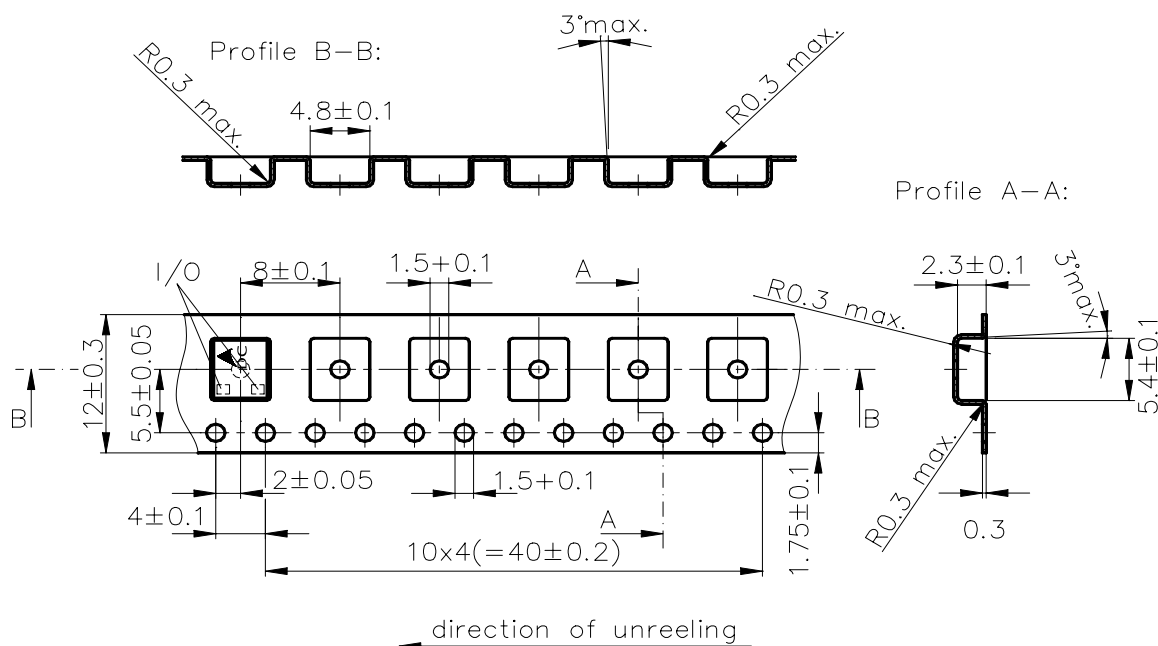
	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	$^{\circ}\text{C}$ $^{\circ}\text{C}$

Recommended soldering conditions (infrared):



Delivery mode

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



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