



Microwave Ceramics Filter

2-pole filter for WLAN 5 GHz/[5.15 ... 5.35] band

Series/Type:	S2H1/1/1
Ordering code:	B69842N5257A200
Date:	2010-01-29
Version:	C

Data sheet

Modification

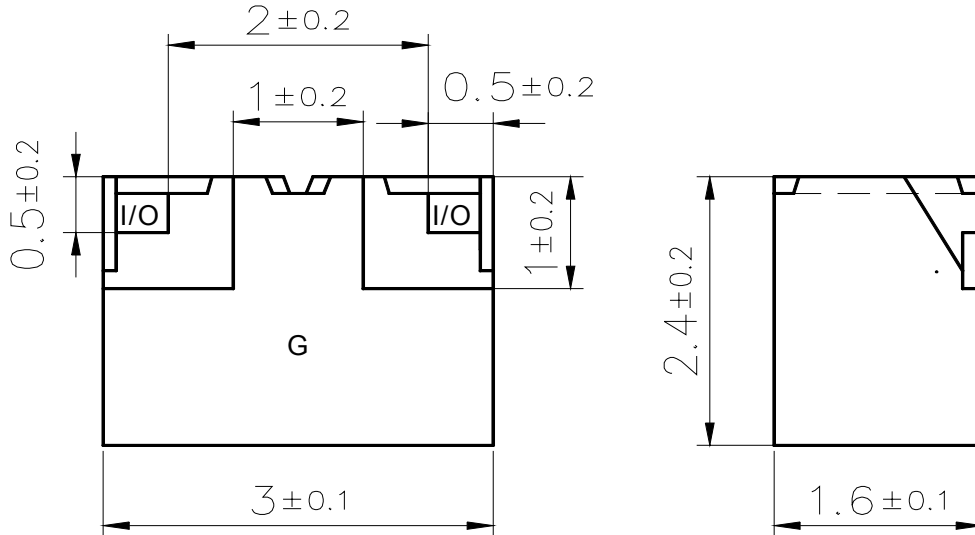
P3		16.05.03	
P4	Soldering requirements	19.03.04	Gavela
A	Final version	07.04.04	Freising
B	Recommended footprint	27.11.06	Freising
C	Upgraded to new form	29.01.10	Reichel

Features

- SMD filter consisting of coupled resonators with stepped impedances
- MgTiO₃ - CaTiO₃ ($\epsilon_r = 21/TC_f = 0 \pm 10$ ppm/K) with a coating of copper (10 μm) and tin (>5 μm)
- Excellent reflow solderability, no migration effect due to copper/tin metallization

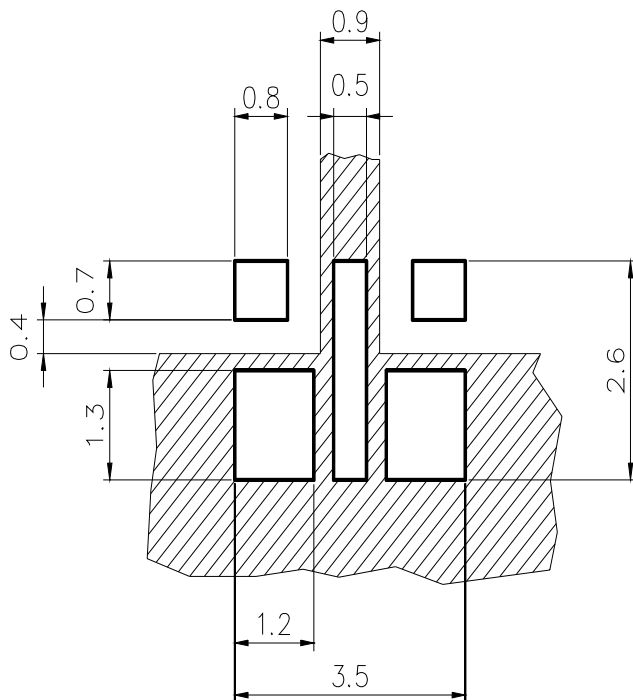
Data sheet

Component drawing



View from below onto the solder terminals and view from beside
 Marking: 'EPCOS logo', on top of the filter

Recommended footprint



solder pads



ground area below solder resist
 with vias to second ground layer

I/O

connected to lines with an
 impedance of 50 Ohm

**Standard
 condition**

FR4 material
 permittivity : 4.4
 preferred thickness : 0.3
 Vias: $\varnothing 0.3\text{mm} / \text{mm}^2$
 For other thickness
 correlation might be necessary

Data sheet

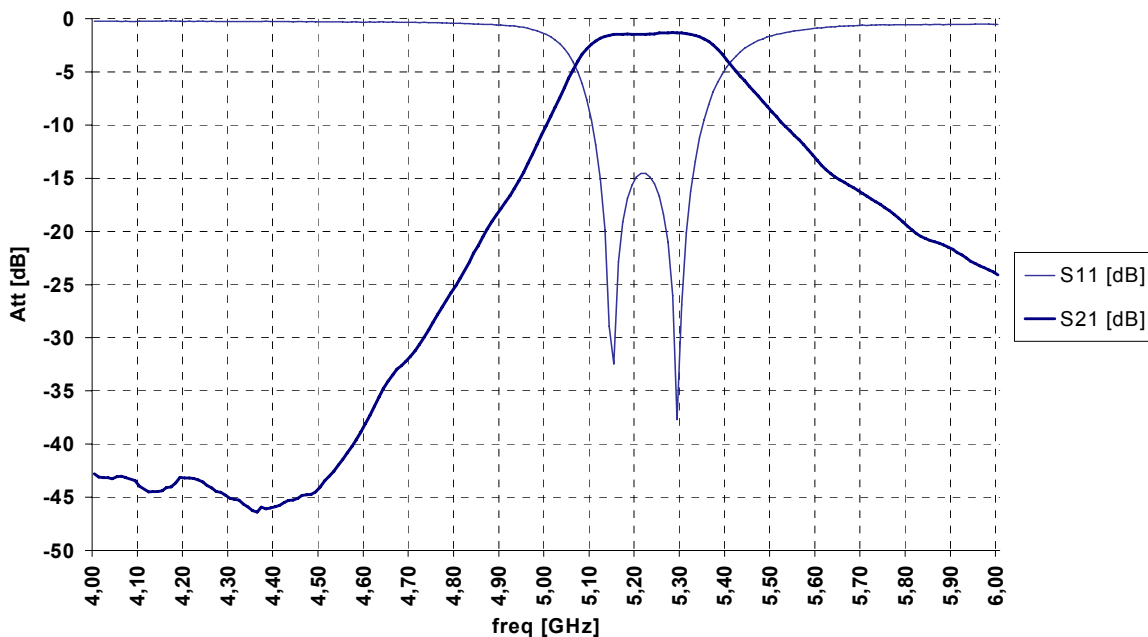
Characteristics

		min.	typ.	max.	
Center frequency	f_c	–	5250	–	MHz
Insertion loss	α_{IL}		1.4	1.8	dB
Passband	B	200			MHz
Standing wave ratio	SWR		1.5	2.0	
Impedance	Z		50		Ω
Power	P			1.0	W
Attenuation	α				
	at DC to 1990 MHz	55	60		dB
	at 1990 to 2170 MHz	53	58		dB
	at 2400 to 2500 MHz	50	55		dB
	at 4500 MHz	35	40		dB
	at 5000 MHz	10			dB
	at 5500 MHz	7			dB
	at 6.5 to 10 GHz	20	25		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

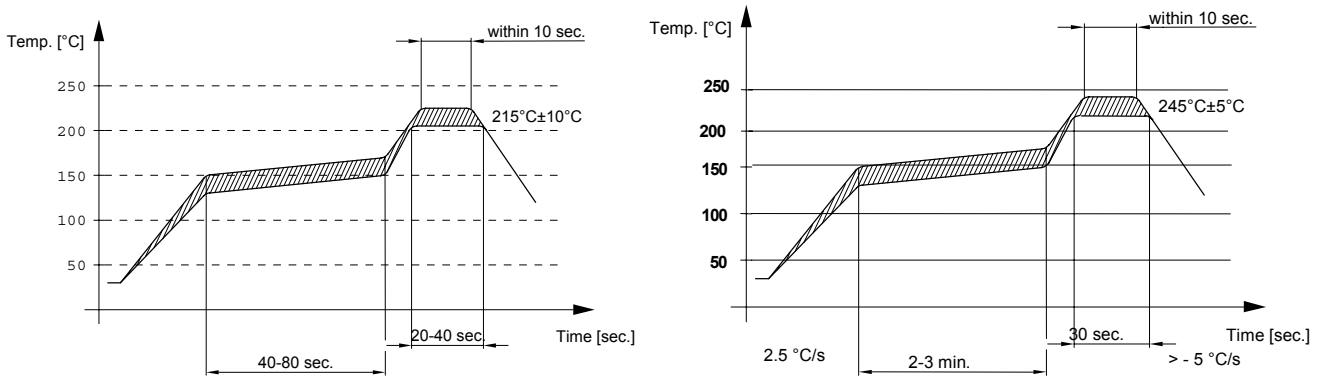
Processing information

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

Soldering requirements

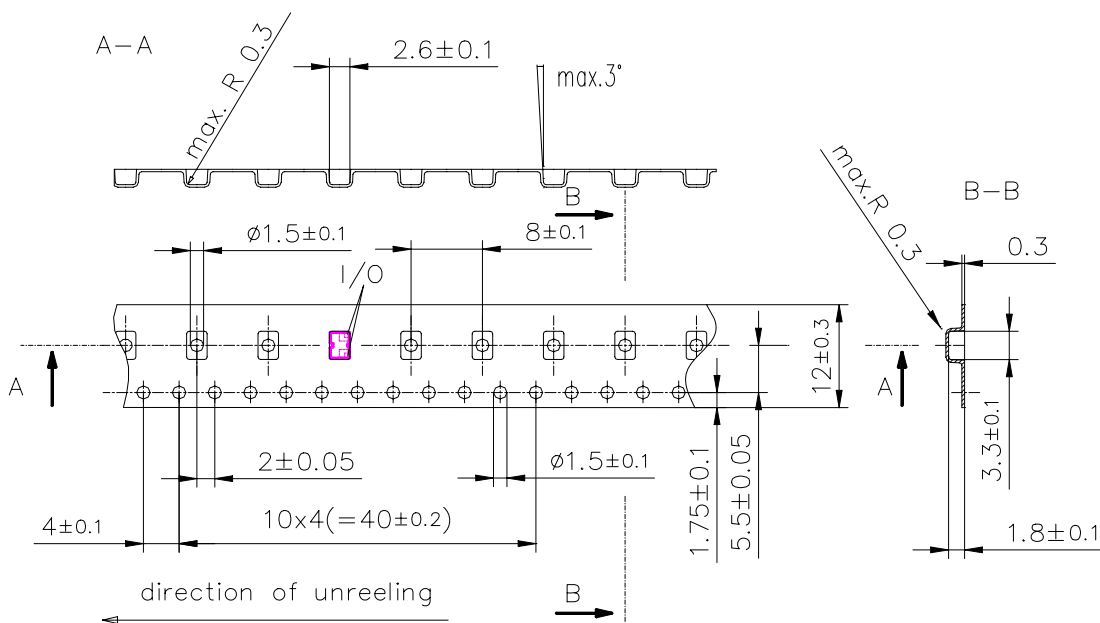
	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	$^{\circ}\text{C}$ $^{\circ}\text{C}$

Recommended soldering conditions (infrared):



Delivery mode

- Blister tape acc. to IEC 286-3, PS, grey
- Pieces/tape: 4000



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