



# Microwave Ceramics Filters

## Series/Type: B301

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B69812N2457B301	CF61B1401-2441-83	2012-04-27	2012-07-31	2012-10-31

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## Data sheet

## Modification

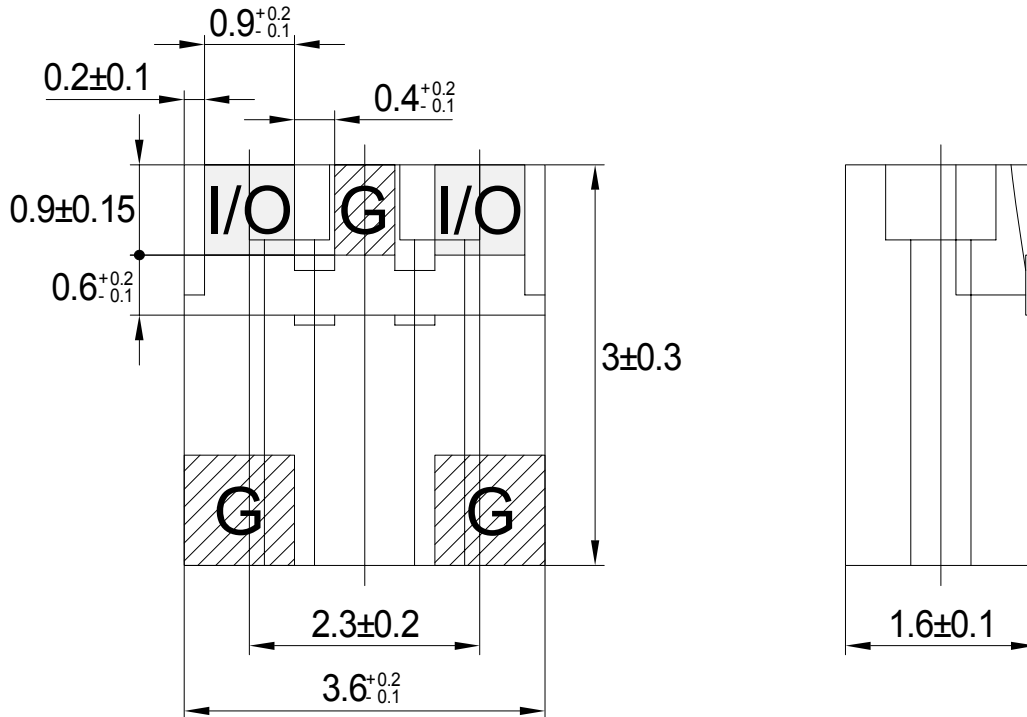
D	Recommended footprint	31.11.01	Gavela
E	Operating temperature, soldering requirements	13.01.03	Gavela
F	Attenuations at DC - 960 MHz, 960 ... 1990 MHz and 2100 ... 2170 MHz	03.03.03	Gavela
G	I/O-Pads in tape-drawing	20.10.03	Stadler
H	Upgraded to new form	16.02.10	Reichel

## Features

- SMD filter consisting of coupled resonators with stepped impedances
- Extreme low losses
- High attenuations at GSM (900, 1800) and UMTS bands
- High attenuation at 2 times center frequency
- (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

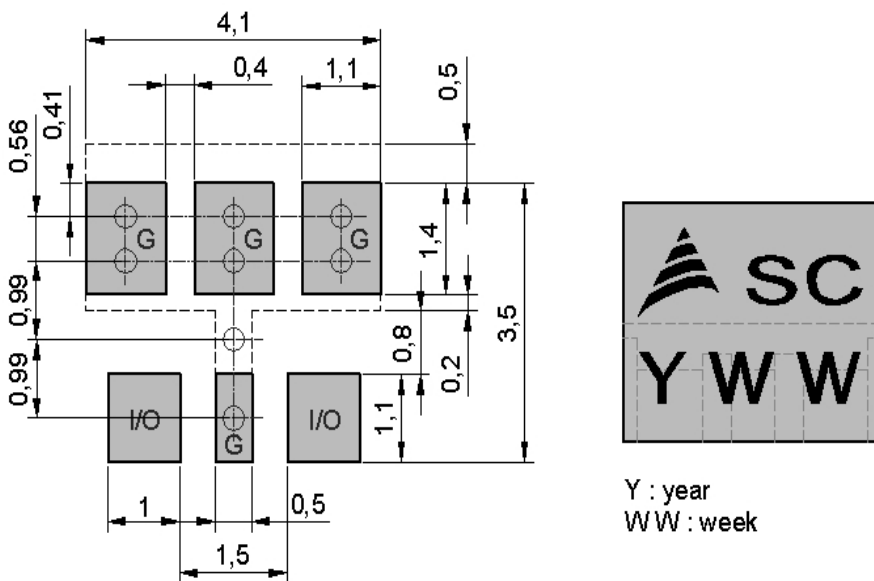
Data sheet


Component drawing



View from below onto the solder terminals and view from beside

Recommended footprint



 soldered areas

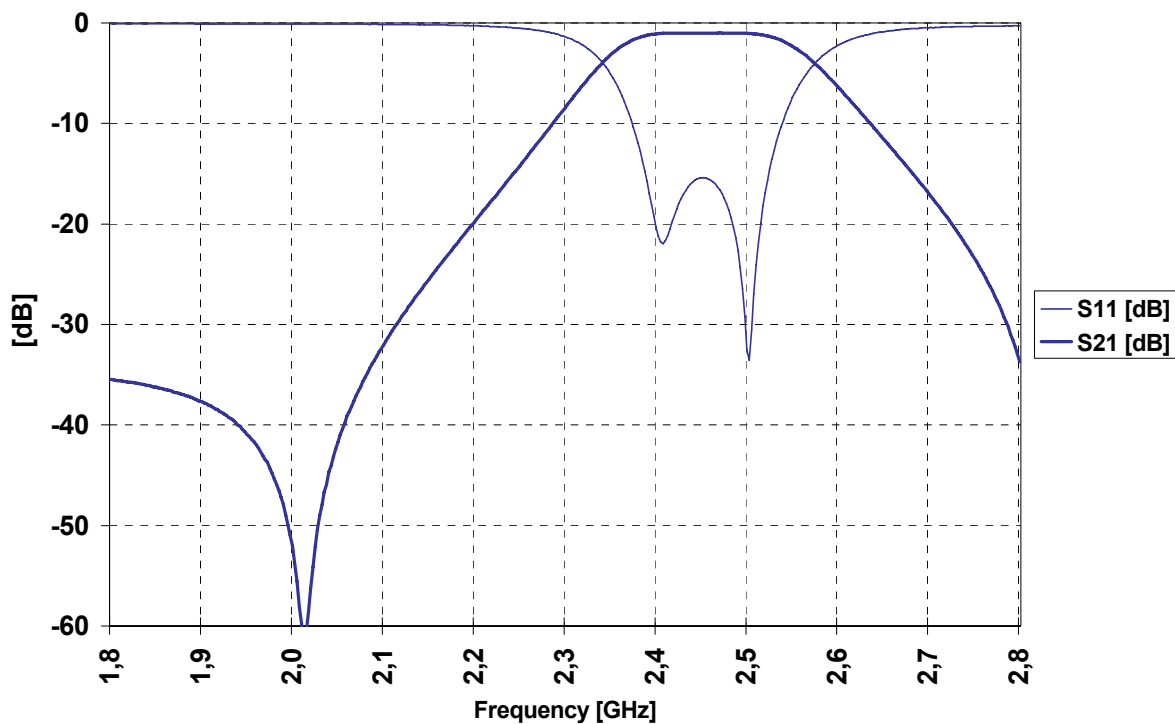
I/O Pads must be terminated with  $50 \Omega$  characteristic impedance

**Data sheet**
**Characteristics**

		min.	typ.	max.	
Center frequency	$f_c$	–	2.4415	–	GHz
Insertion loss (2400 ... 2483MHz)	$\alpha_{IL}$		0.8	1.2	dB
Passband	B	83			MHz
Amplitude ripple (peak – peak)	$\Delta\alpha$		0.4	0.8	dB
Standing wave ratio	SWR		1.5	2.0	
Impedance (2400 ... 2483MHz)	Z		50		$\Omega$
Attenuation	$\alpha$				
	at DC to 960 MHz	45	46		dB
	at 960 to 1990 MHz	33	35		dB
	at 2100 to 2170 MHz	22	23		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

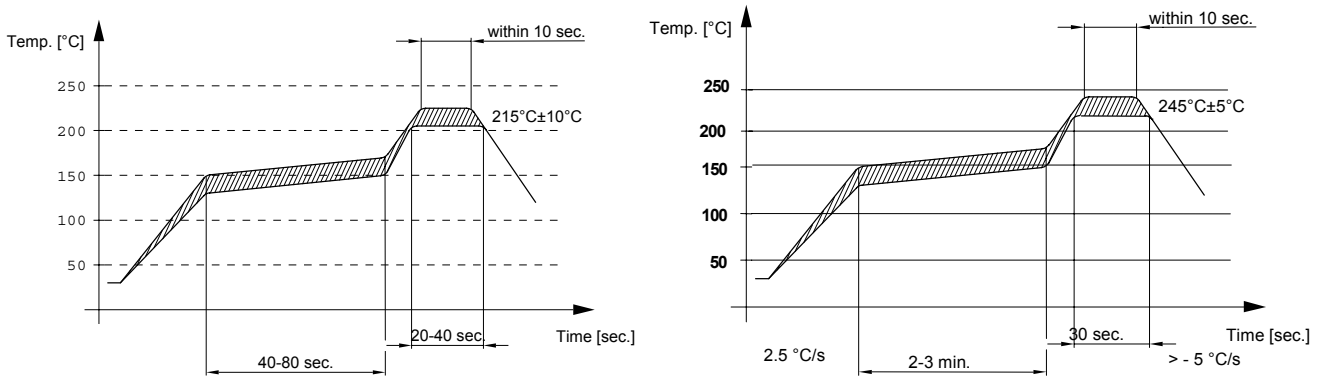
Processing information

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

Soldering requirements

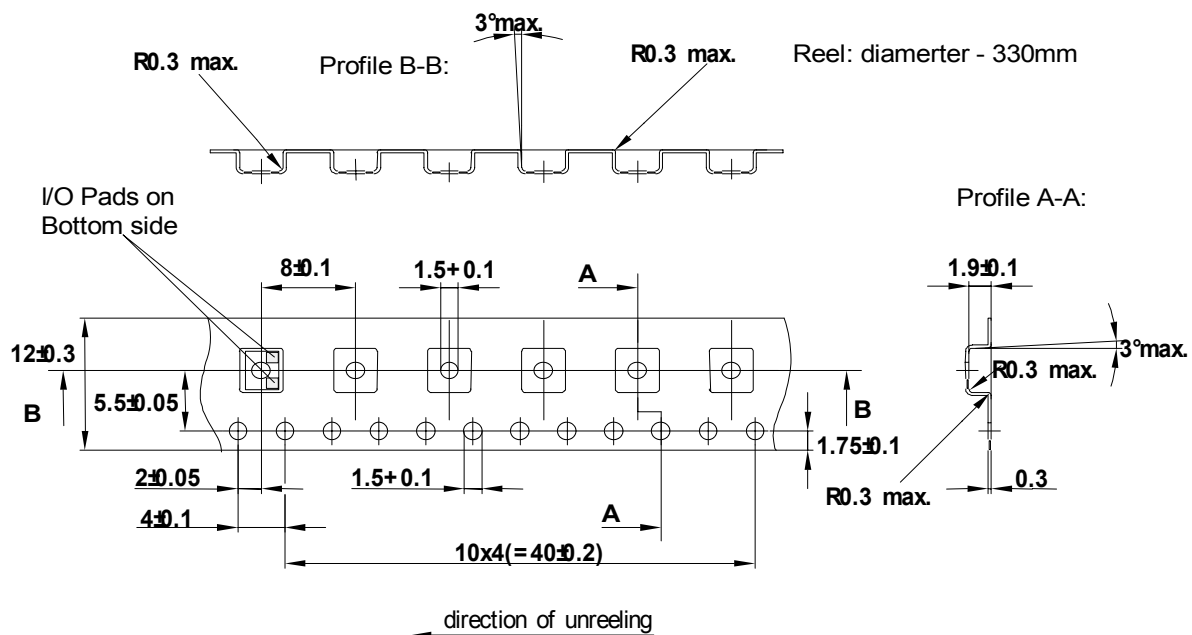
	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	°C °C

Recommended soldering conditions (infrared):



Delivery mode

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



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