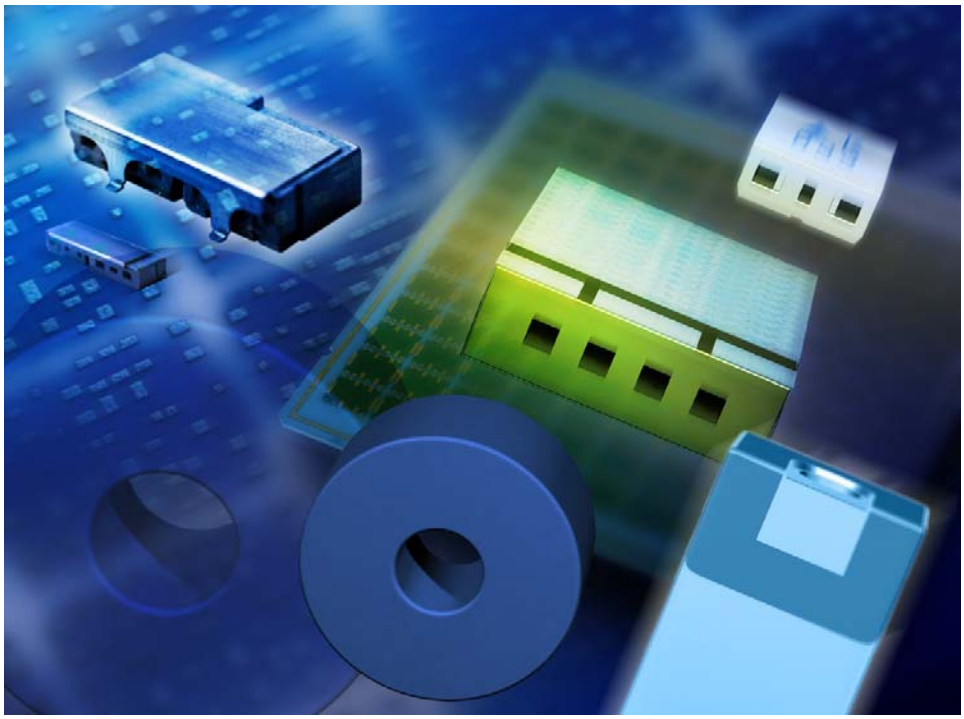
2 Pole Filter for GPS

B69812N1577B302

Preliminary Datasheet



Features

- SMD filter consisting of coupled resonators with stepped impedances
- (NdBa)TiO_3 (ε_r = 88 / TC_f =0±10 ppm/K) with a coating of copper (10µm) and tin (>5µm)
- Excellent reflow solderability, no migration effect due to copper/tin metallization

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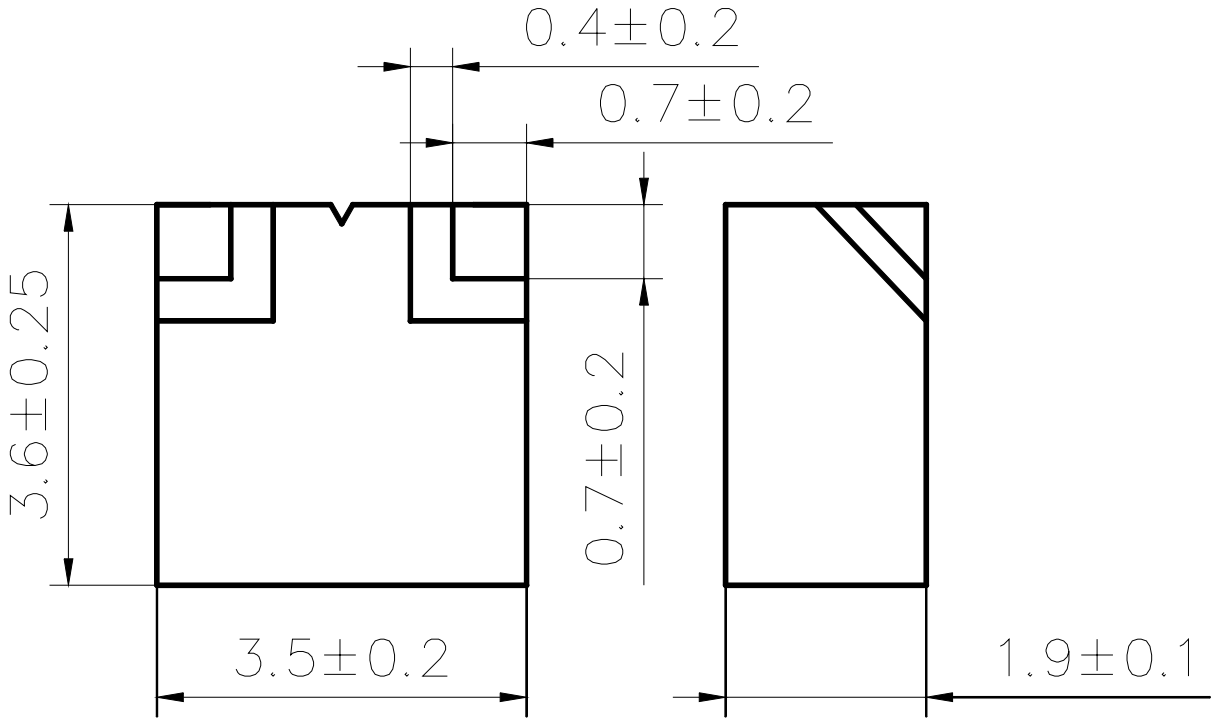
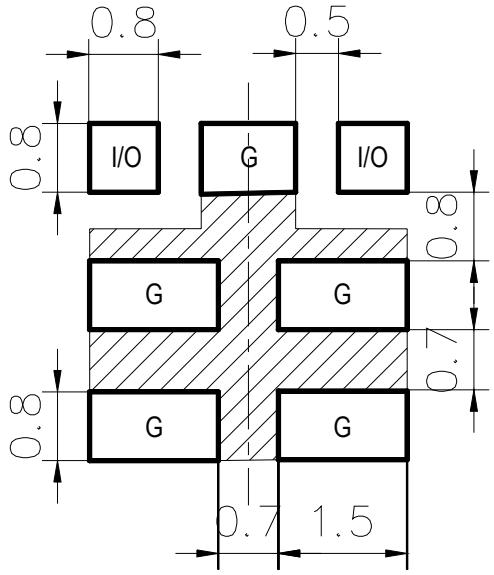
Component drawing



View from below onto the solder terminals and view from beside

COMP_060602.DWG/WMF

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 : 0.3mm
Vias : Ø0.3mm /mm^2
For other thicknesses
correlation might be necessary

FP_060602.DWG/WMF

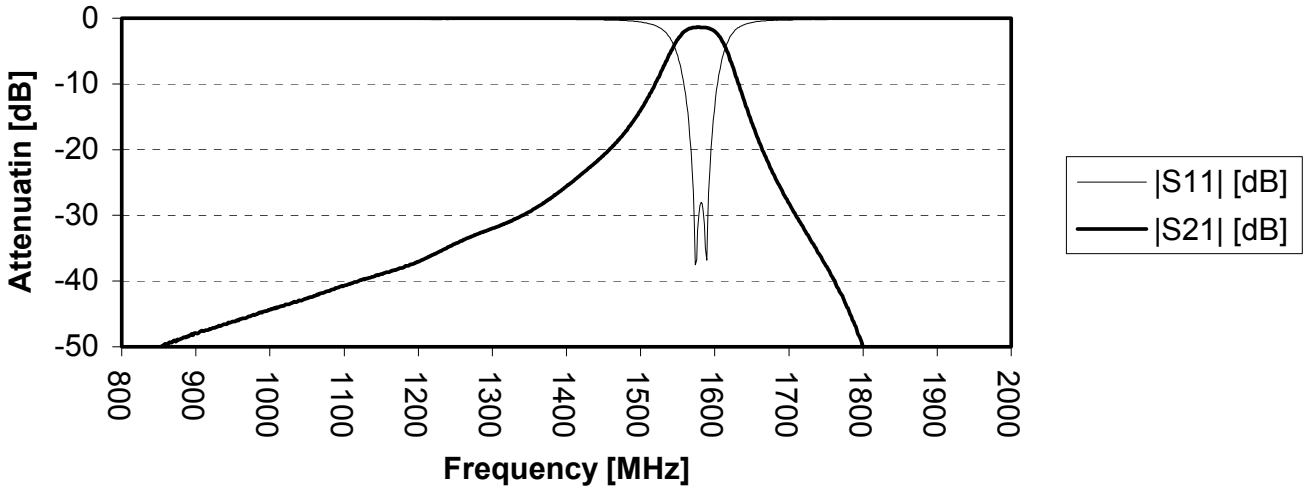
Characteristics

		min.	typ.	max.	
Center frequency	f_C	-	1575.42	-	MHz
Insertion loss	α_{IL}		1.3	1.5	dB
Passband	B	2			MHz
Amplitude ripple (peak - peak)	$\Delta\alpha$			0.1	dB
Standing wave ratio	SWR			1.8	
Impedance	Z		50		Ω
Attenuation	α				
at 824 to 849 MHz		50			dB
at 1850 to 1910 MHz		45			dB

Maximum ratings

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

Typical passband characteristic



Processing information

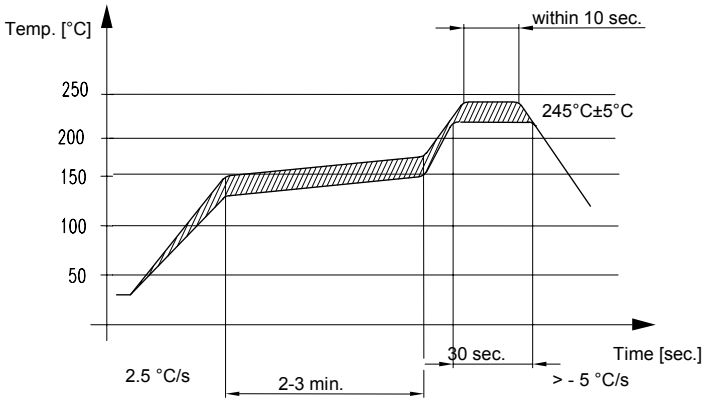
ZNr.: 605 (FILT95_2)

- Wettability to IEC 68-2-58: ≥ 75% (after aging)

Soldering requirements

Soldering type	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	260 (max. 2 sec.) 250 (max. 10 sec.)	°C °C

Recommended soldering conditions (infrared):



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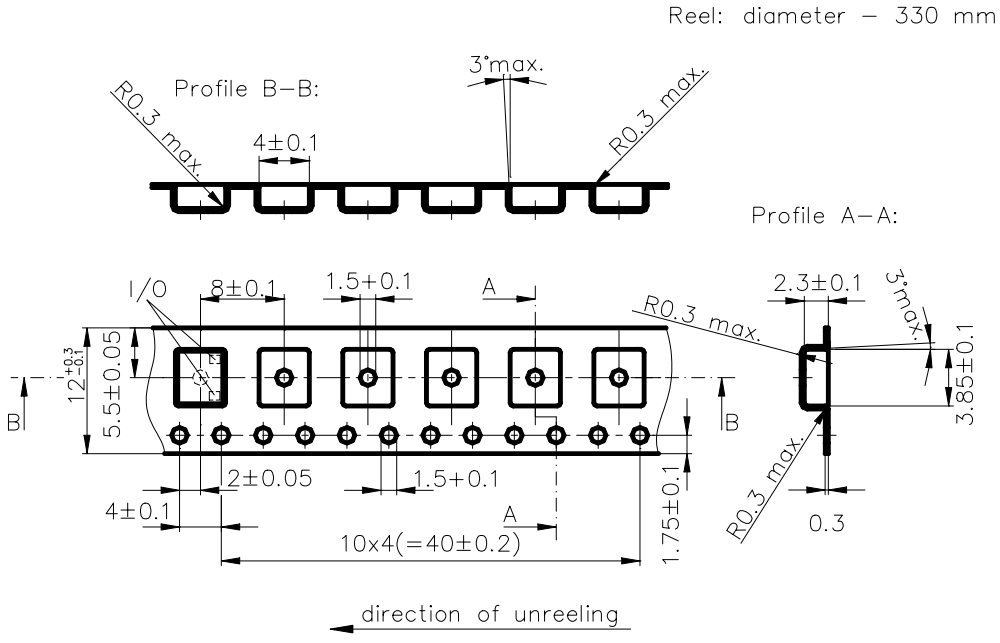
Delivery mode

- Blister tape to IEC 286-3, PS, grey
- Pieces/tape: 3000



Tap 424