

**VI TELEFILTER****Filter Specification****TFS 167 - Page 1 /3****Measurement condition**

Ambient temperature: 23 °C  
 Input power level: 0 dBm  
 Terminating impedances:

Input 680 Ω || -1 pF.  
 Output 680 Ω || -1 pF.

**Construction and pin connection**

see page 2

**Stability characteristics and packing**

see page 3

**Characteristics**

Remark:

Reference level for the relative attenuation  $a_{rel}$  of the TFS 167 is the pass band attenuation at the nominal frequency  $f_N$ . The minimum attenuation in the pass band is defined as the insertion loss  $a_e$ . The nominal frequency  $f_N$  is fixed at 167,025 MHz without tolerance or limit. The values of relative attenuation  $a_{rel}$  are guaranteed in the whole operating temperature range. The frequency shift of the filter in the operating temperature range is included in the production tolerance scheme.

D a t a		typ. value		tolerance / limit	
<b>Insertion loss</b> (Reference level)	$a_e$	-		max. 5	dB
<b>Nominal frequency</b>	$f_N$	-		167,025 MHz	
<b>3 dB band width</b>	BW	95	kHz	-	
<b>Pass band ripple</b>					
$f_N \pm$	20 kHz	-		max 1	dB
<b>Relative attenuation</b>					
$f_N \pm$	225 kHz	-		min 50	dB
$f_N -$	910 kHz	-		min 50	dB
<b>Temperature coefficient of frequency</b>	$TC_f$ *)	- 0,036 ppm/K <sup>2</sup>		-	
<b>Frequency inversion temperature</b>	$T_o$	+ 25	°C	-	
<b>Operating temperature range</b>		- 20 °C ... + 70 °C			

\*)  $\Delta f(\text{Hz}) = TC_f(\text{ppm/K}^2) \times (\Delta T)^2 \times f_{T0}(\text{MHz})$

**generated:** \_\_\_\_\_

**checked / approved:** \_\_\_\_\_

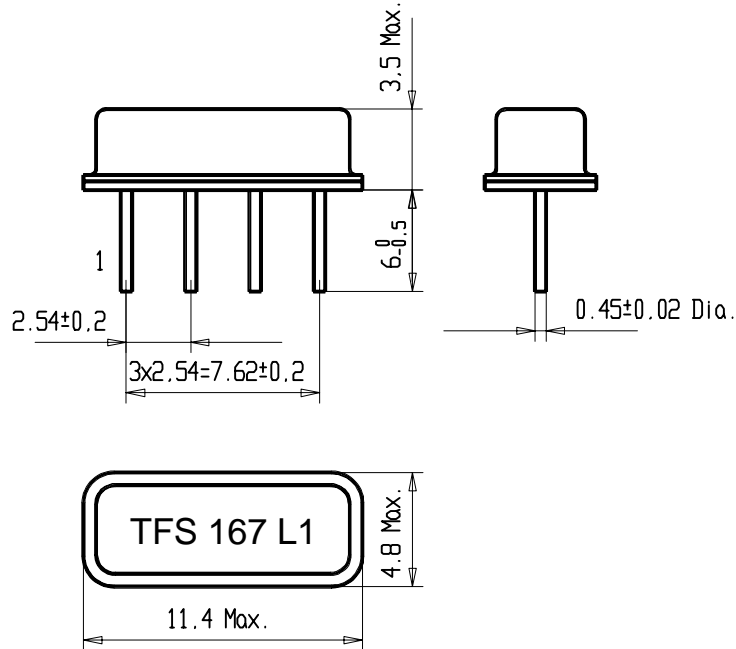
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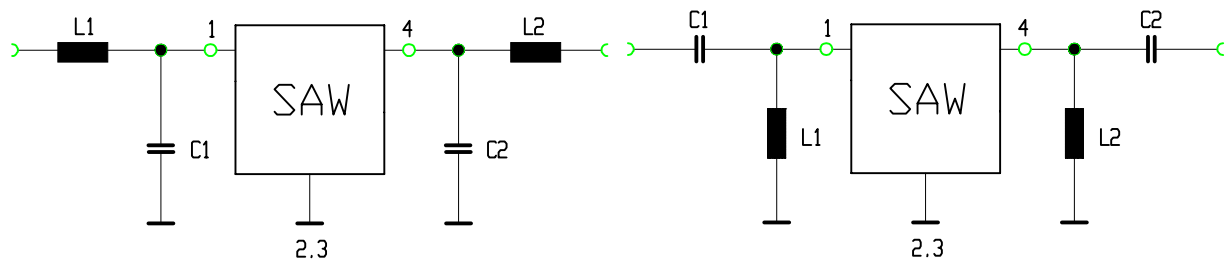
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**Construction, pin configuration and 50 Ω matching network: 680 Ω || -1 pF.**

(All dimensions in mm)



- 1 Input
- 2 Ground
- 3 Ground
- 4 Output



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**Air reflow temperature conditions**

1st and 2nd air reflow profile

<b>Name:</b>	pre-heating periods	main-heating periods	peak temperature
<b>Temperature:</b>	150 °C - 170 °C	over 200 °C	255 °C ± 5 °C
<b>Time:</b>	60 sec. - 90 sec.	20 sec. - 25 sec.	

**Chip-mount air reflow profile**

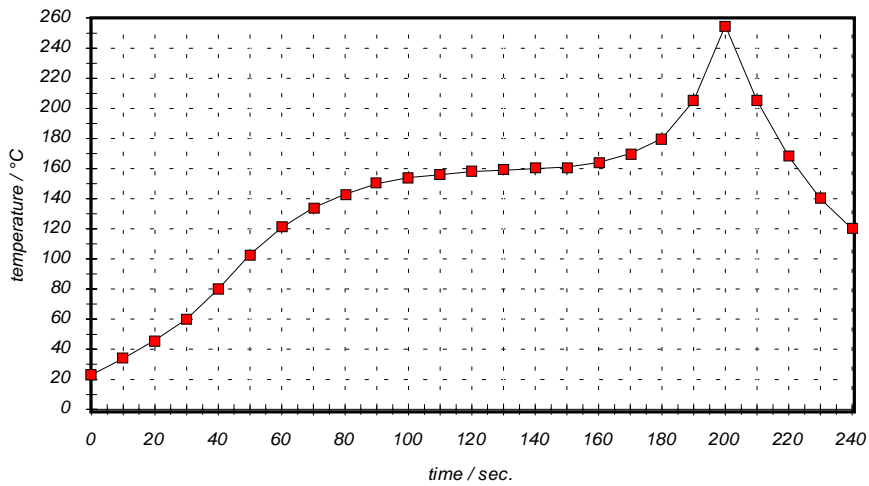


Table for temperature vs. time during the air reflow process

Tolerance of temperatures: ± 5 °C

time / sec.	temperature / °C	time / sec.	temperature / °C
0	23	140	160
10	34	150	161
20	46	160	164
30	60	170	170
40	80	180	180
50	103	190	200
60	121	195	220
70	134	200	230
80	143	205	220
90	150	210	200
100	154	215	180
110	156	220	165
120	158	230	140
130	159	240	120