Measurement condition

Ambient temperature: 23 °C
Input power level: 0 dBm
Terminating impedances:
Input: : 600 Ω // -1 pF
Output : 600 Ω // -1 pF

Characteristics

Remark:
Reference level for the relative attenuation a_{rel} of the TFS 152 is the maximmum pass band attenuation, which is is defined as the insertion loss a_e. The nominal frequency f_N is fixed at 152,8 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**
Insertion loss (Reference level)	a_e	2,8	max. 5 dB
Nominal frequency	f_N	155,805 MHz	152,8 MHz
Usable signal band width			min. ± 10 kHz
Relative attenuation	a_{rel}		
f_N + 910 kHz		65 dB	min. 60 dB
Temperature coefficient of frequency	TC_f ***)**	- 0,036 ppm/K²	-
Frequency inversion temperature	T_0	+ 25 °C	-
Operating temperature range		- 10 °C ... + 50 °C	

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

generated: _____

checked / approved: _____

VI TELEFILTER
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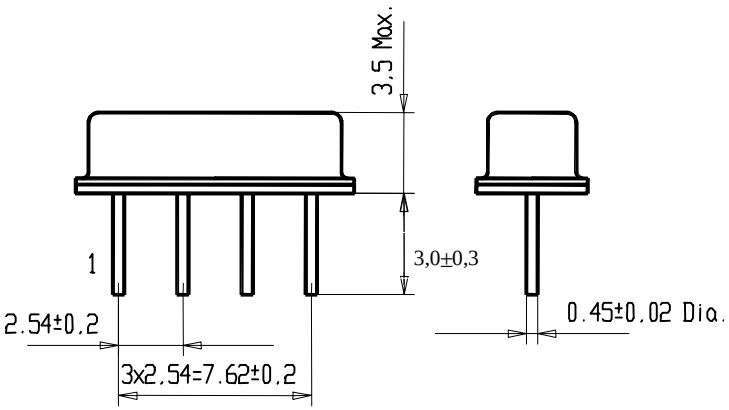
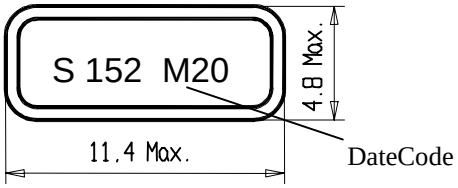
E-Mail: tft@telefilter.com

Vectron International, Inc.
267 Lowell Road
Hudson, NH 03051 / USA
Tel: (603) 598-0070 Fax: (603) 598-0075
E-Mail: vti@vtinh.com

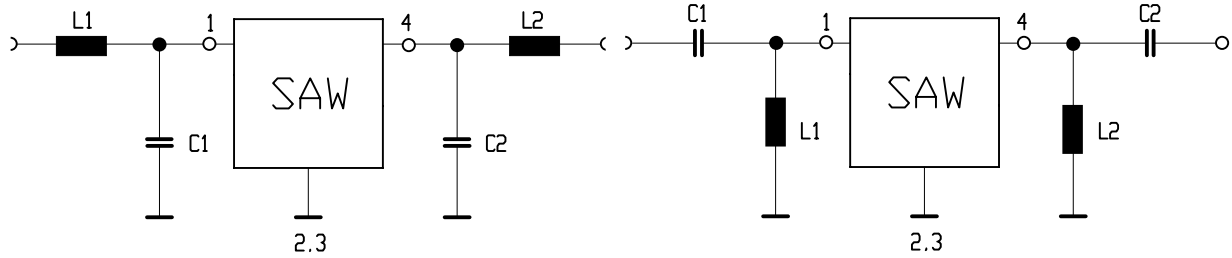
Construction, pin configuration and 50 Ω matching network:
(All dimensions in mm)



1 – Input
2 – Ground
3 – Ground
4 – Output



Datecode:	Year+week
K	1998
L	1999
M	2000
...	



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Stability Characteristics

After the following tests the filter shall meet the whole specification:

1. Shock:	500g, 18 ms, half sine wave, 3 shocks each plane; DIN IEC 68 T2 - 27
2. Vibration:	10 Hz to 500 Hz, 0,35 mm or 5g respectively, 1 octave per min, 10 cycles per plan, 3 plans; DIN IEC 68 T2 - 6
3. Damp heat: (cycle)	25 °C to 55°C / 95% r.H. / 10 cycles DIN IEC 68 - 2 – 30 Db
4. Resistance to solder heat (reflow):	max. 2 times reflow process; for temperature conditions refer to the attached "Air reflow temperature conditions" on page 4;

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Air reflow temperature conditions

1st and 2nd air reflow profile

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

Air reflow temperature profile

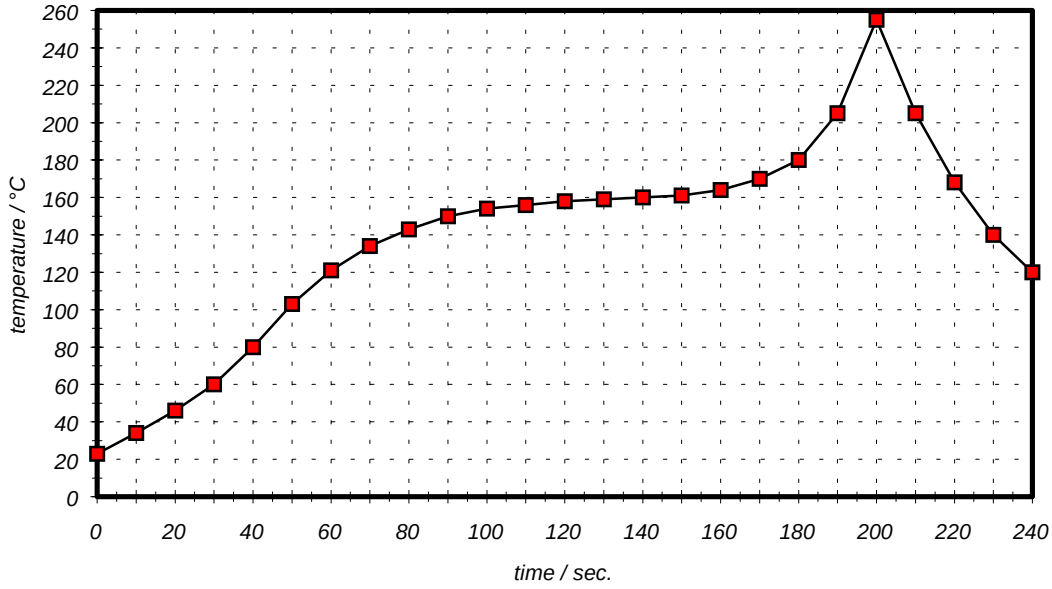

Table for temperature vs. time during the air reflow process

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	205
60	121	195	230
70	134	200	255
80	143	205	230
90	150	210	205
100	154	215	180
110	156	220	165
120	158	230	140
130	159	240	120

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History

Version	Reason of Changes	Name	Date
1.1	Generation of complete specification	Dr. Wall	18.05.2000

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