

VI TELEFILTER**Filter specification****TFS 256****1/5****Measurement condition**

Ambient temperature:	23	°C
Input power level:	0	dBm
Terminating impedance:		
Input:	200	Ω
Output:	200	Ω

Characteristics

Remark:

The nominal frequency f_N is fixed at 256,0 MHz. The insertion loss a_e is defined as loss value determined at f_N . All specified data are met within the operating temperature range.

D a t a		typ. value		tolerance / limit	
Insertion Loss (reference level)	a_e	1,35	dB	max.	3,5 dB
Nominal Frequency	f_N	-			256,0 MHz
Centre Frequency	f_C	256,0	MHz		
Bandwidth 3 dB	BW	5,85	MHz		-
Absolute Attenuation	a_{abs}				
$f_N - 85,333$ MHz		53	dB	min.	48 dB
$f_N + 85,333$ MHz		48	dB	min.	45 dB
$f_N \pm 170,666$ MHz		51	dB	min.	48 dB
$f_N + 256,000$ MHz		51	dB	min.	48 dB
Input power level				max.	10 dBm
Operating Temperature Range	OTR	-			- 25 °C ... + 85 °C
Storage Temperature Range		-			- 45 °C ... + 95 °C
Temperature Coefficient of Frequency	TC_f *	- 32	ppm/K		

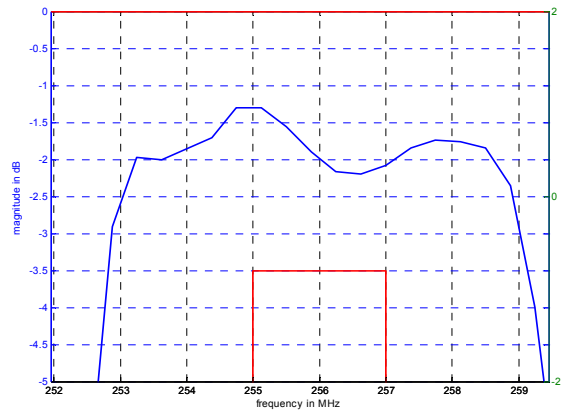
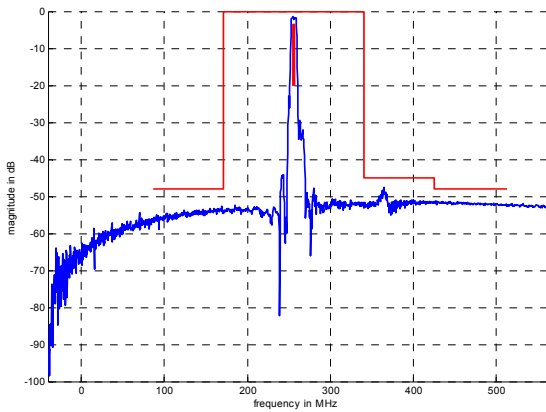
*) $\Delta f(\text{Hz}) = TC_f(\text{ppm/K}) \times (T - T_0) \times f_{T_0}(\text{MHz})$.

Generated:**Checked / Approved:**

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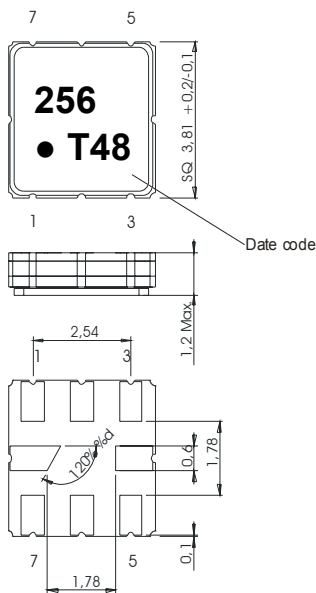
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Filter characteristic



Construction and pin connection

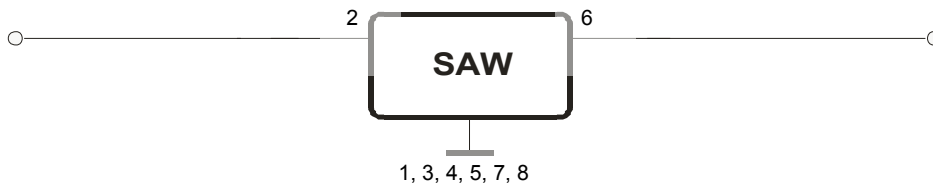
(All dimensions in mm)



- 1 Ground
- 2 Input
- 3 Ground
- 4 Ground
- 5 Ground
- 6 Output
- 7 Ground
- 8 Ground

Date code: Year + week
 T 2005
 U 2006
 V 2007
 ...

200 Ω Test circuit



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Stability characteristics, reliability

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

1. Shock: 500g, 1 ms, half sine wave, 3 shocks each plane;
DIN IEC 68 T2 - 27
2. Vibration: 10 Hz to 500 Hz, 0,35 mm or 5 g respectively, 1 octave per min, 10 cycles per plan, 3 plans;
DIN IEC 68 T2 - 6
3. Change of temperature: -55 °C to 125°C / 30 min. each / 10 cycles
DIN IEC 68 part 2 – 14 Test N
4. Resistance to solder heat (reflow): reflow possible: twice max.;
for temperature conditions refer to the attached "Air reflow temperature conditions" on page 4;

This filter is RoHS compliant (2002/95/EG, 2005/618/EG)

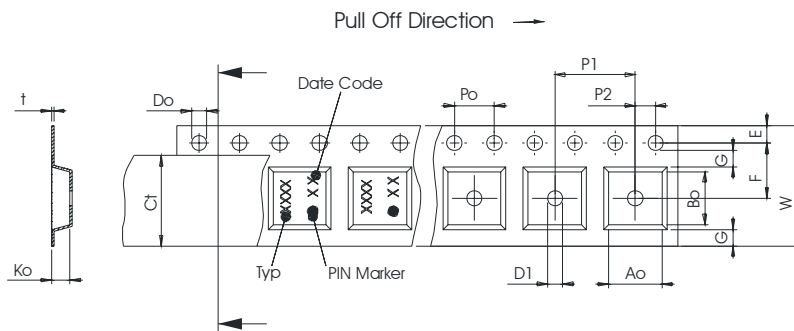
Packing

Tape & Reel: IEC 286 – 3, with exeption of value for N and minimum bending radius;
tape type II, embossed carrier tape with top cover tape on the upper side;

max. pieces of filters peer reel: 3000
reel of empty components at start: min. 300 mm
reel of empty components at start including leader: min. 500 mm
trailer: min. 300 mm

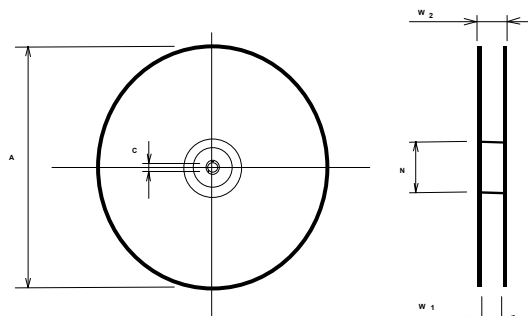
Tape (all dimensions in mm)

- W : 12,00 ± 0,3
- Po : 4,00 ± 0,1
- Do : 1,50 +0,1/-0
- E : 1,75 ± 0,1
- F : 5,50 ± 0,05
- G(min) : 0,75
- P2 : 2,00 ± 0,05
- P1 : 8,00 ± 0,1
- D1(min) : 1,50
- Ao : 4,30 ± 0,1
- Bo : 4,30 ± 0,1
- Ct : 9,5 ± 0,1



Reel (all dimensions in mm)

- A : 330
- W1 : 12,4 +2/-0
- W2(max) : 18,4
- N(min) : 50
- C : 13,0 +0,5/-0,2



The minimum bending radius is 45 mm.

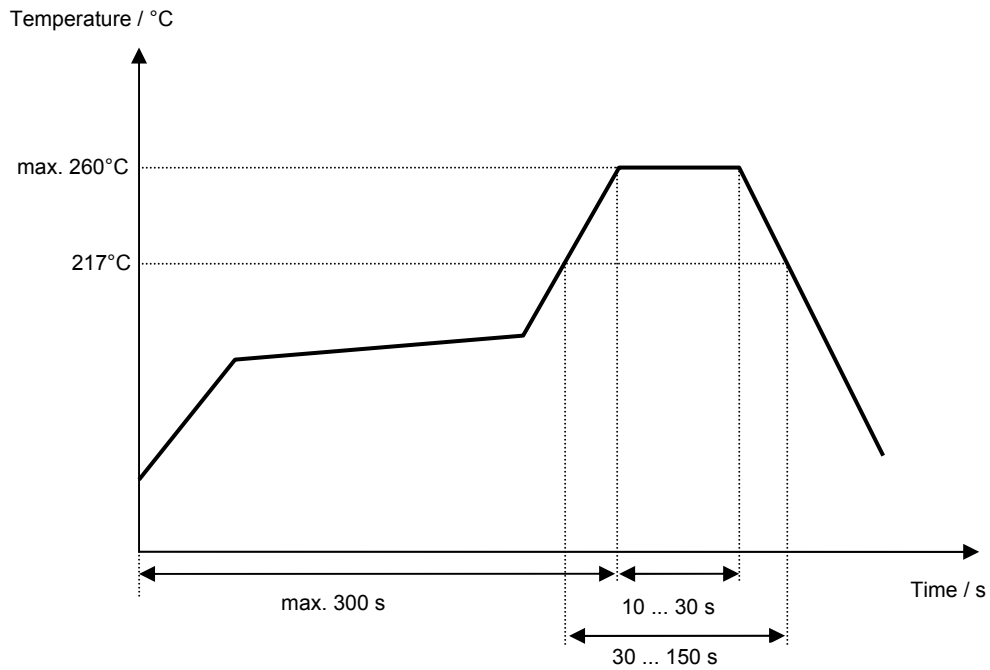
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Air reflow temperature conditions

Conditions	Exposure
Average ramp-up rate (30°C to 217°C)	less than 3°C/second
> 100°C	between 300 and 600 seconds
> 150°C	between 240 and 500 seconds
> 217°C	between 30 and 150 seconds
Peak temperature	max. 260°C
Time within 5°C of actual peak temperature	between 10 and 30 seconds
Cool-down rate (Peak to 50°C)	less than 6°C/second
Time from 30°C to Peak temperature	no greater than 300 seconds

Chip-mount air reflow profile



VI TELEFILTER**Filter specification****TFS 256****5/5****History**

Version	Reason of Changes	Name	Date
1.0	- Generation of development specification	Strehl	25.08.2005
1.1	- Add typical values, add filter characteristic, - change absolute attenuation, change stability characteristics, - generation of filter specification	Channaa	28.11.2005