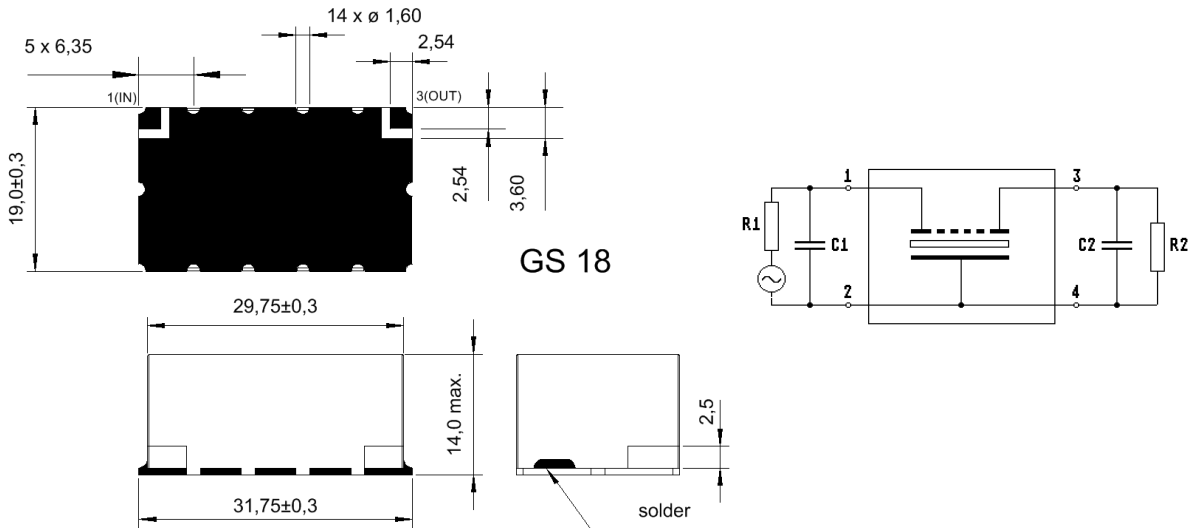


Specification for crystal filter: QF 6.990.....7.010-0280/06

## 1. General

### 1.1. Package



- |                                   |                            |
|-----------------------------------|----------------------------|
| 1.2. Type name:                   | QF 6.990.....7.010-0280/06 |
| 1.3. Number of poles:             | 5                          |
| 1.4. Operating temperature range: | -30°C to +85°C             |
| 1.5. Storage temperature range:   | -45°C to +85°C             |

## 2. Electric values

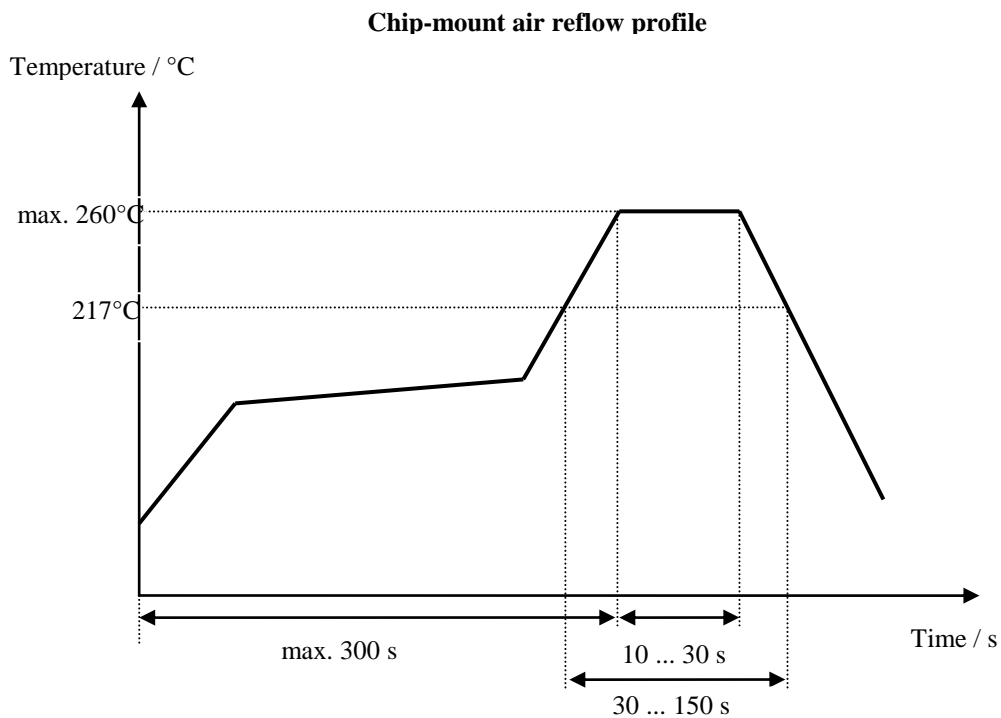
- |   |  |
|---|--|
| 2.1. Nominal centre frequency fo [ MHz ]:                                   | 6.990 , 6.992, 6.994, 6.996, 6.998, 7.000, 7.002<br>7.004, 7.006, 7.008, 7.010 |
| 2.2. <b>Pass band</b>   |  |
| 2.2.1. Centre frequency fc at 25°C . 3°C:                                   | fo . 180Hz   |
| 2.2.2. Bandwidth between 3 dB - frequencies:                                | > fc , 1.4 kHz   |
| 2.2.3. Ripple at fc . 0.8 kHz:  | < 1.0 dB ( < 0.5 dB peak to peak )   |
| 2.2.4. Insertion loss:<br>( measured on smallest attenuation in pass band ) | < 3.0 dB   |
| 2.3. <b>Stop band</b>   |  |
| 2.3.1. fc . 5.5 kHz   | > 60 dB  |
| 2.3.2. Alternate Attenuation  | > 70 dB ( except spurious )  |
| 2.4. Nominal input power level  | +10 dBm  |
| 2.4.1. Maximal input power level  | +25 dBm  |
| 2.5. Terminating impedance R//C ( input and output ):                       | 50 . // 0 pF   |
| 3. Marking ( i. e. ):   | manufacturer, date code<br>QF 6.990-0280/06                                    |

4. Environment conditions:

vibration: 9.8 g, 20-2000 Hz, duration 60 sec. each axis.  
 shock: 40g, 11 ms, ½ sine; change of  
 temperature: -30.....+70 Deg. C with exposure time rate at 5 Deg. C / min.

5. 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 peak temperature	between 10 and 30 seconds
cool-down rate ( starting at peak temperature to 50°C )	less than 6°C / second
time from 30°C to peak temperature	no more than 300 seconds



Edited by: \_\_\_\_\_ date: \_\_\_\_\_ name: \_\_\_\_\_