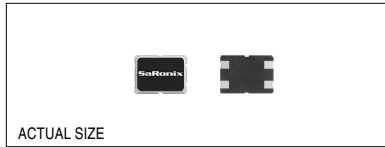


Technical Data

HFX7 Series



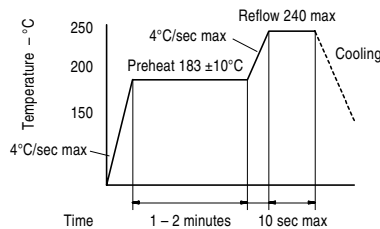
Description

The HFX7 Series is a very high frequency miniature AT-cut resonator housed in a standard 5x7 mm ceramic package. The parts exhibit excellent aging and stability characteristics. Tab-Mesa Technology TmT™, proprietary to Saronix, is used to achieve fundamental resonators to 250 MHz.

Applications & Features

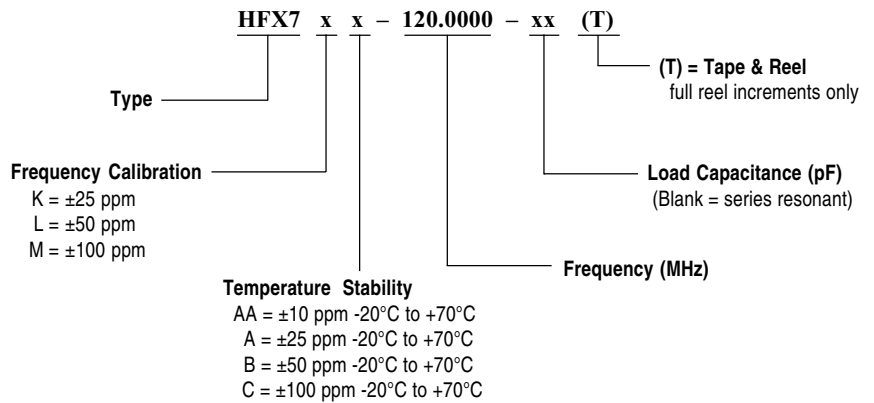
- Telecommunications
 - Wireless RF Applications
 - Video, graphics
 - VCXO's
 - Low jitter, high frequency oscillators
 - Ultra low power oscillators and transmitters
 - Micro-miniature modules
 - Small seam welded package
 - AT cut
- Available on tape & reel; 16mm tape, 1000pcs per reel

Solder Reflow Guide



Frequency Range:	30 MHz to 250 MHz Fundamental
Frequency Calibration Tolerance @ 25°C:	±25, ±50, ±100 ppm. Others available, contact SaRonix
Load Capacitance:	4 pF to Series
Temperature Stability:	±10, ±25, ±50, ±100 ppm over -20 to +70°C typical. Others available, contact SaRonix
Drive Level:	25µW correlation, 500µW max
Quality Factor (Q):	see Typical Crystal Parameters, Chart 1
Motional Capacitance (C1):	see Typical Crystal Parameters, Chart 2
Shunt Capacitance (C0):	see Typical Crystal Parameters, Chart 3
Effective Series Resistance:	see Typical Crystal Parameters, Chart 4
Storage Temperature:	-55 to +125°C
Aging First Year:	±5 ppm
Mechanical:	
Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J
Environmental:	
Gross Leak Test:	MIL-STD-883, Method 1014, Condition C
Fine Leak Test:	MIL-STD-883, Method 1014, Condition A2 <5 x 10 ⁻⁸ ATM cc/sec
Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

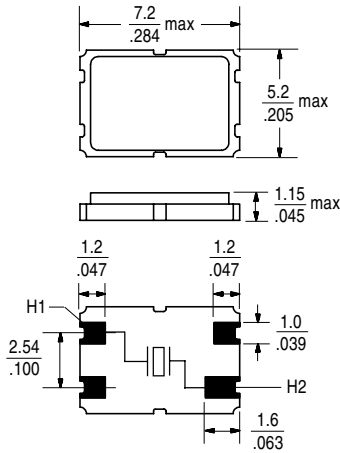
Part Numbering Guide



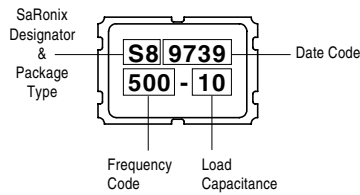
Technical Data

HFX7 Series

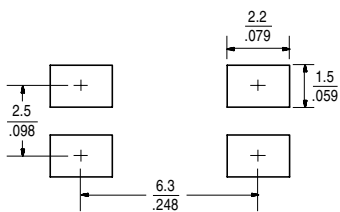
Package Details



Marking Format



Recommended Land Pattern



Typical Crystal Parameters:

Chart 1: Typical Q-Factor Values

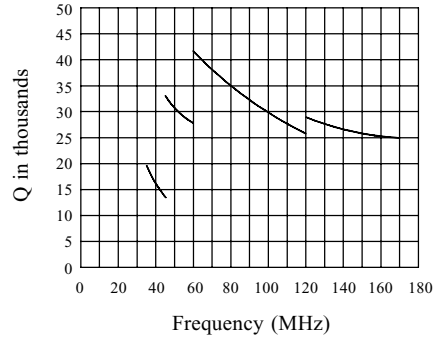


Chart 2: Typical C1 Values

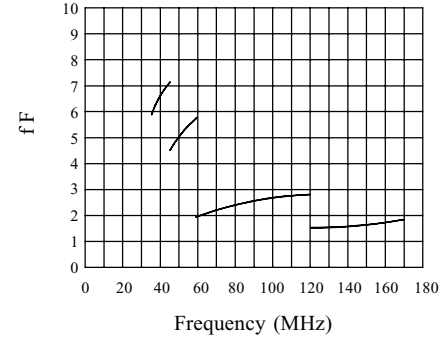


Chart 3: Typical C0 Values

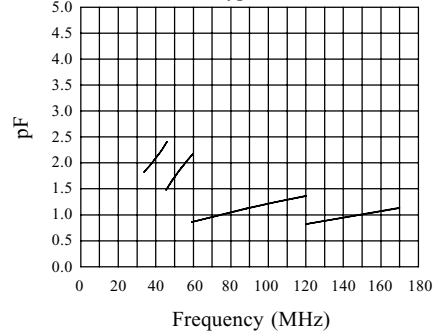
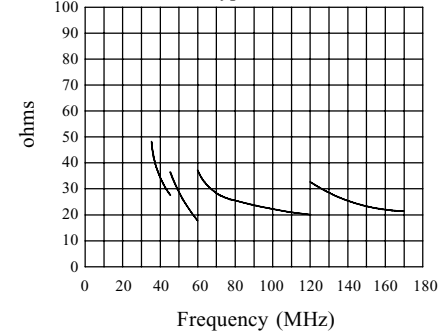


Chart 4: Typical ESR Values



Common Frequencies (MHz)

32.7680	66.6667	100.0000
34.3680	66.6670	106.2500
38.8800	74.0740	106.2600
39.3216	75.0000	125.0000
40.0000	76.0000	133.3300
50.0000	77.7600	155.5200
51.8400	80.0000	155.5355
55.2960	90.0000	160.0000
65.5360	98.3040	200.0000

All specifications are subject to change without notice.

DS-127 REV B