Quartz Crystal Specification
88SMX

ISSUE 7; April 2016

Description

- SMD 6 pad version of the HC49/3.5H
  Resistance welded, hermetically sealed in an inert atmosphere, glass to metal seals on leads.
  Please see our CFPX-98 for a 4 pad version of this package.
  Please see our HC49/4HSMX for standard stock items in this package type.

Frequency Parameters

Frequency	3.2MHz to 100.0MHz
Frequency Tolerance	±10.00ppm to ±100.00ppm
Frequency Stability	±15.00ppm to ±500.00ppm
Ageing	±5ppm typical per year

Electrical Parameters

Load Capacitance (CL)	10.0pF to 75.0pF
Shunt Capacitance (C0)	7pF max
Drive Level	500µW max

Operating Temperature Ranges

- 0 to 50°C
- -10 to 60°C
- -20 to 70°C
- -30 to 80°C
- -40 to 85°C
- -55 to 105°C

Environmental Parameters

- Shock: 981m/s2, 6ms, 3 times in each of 3 mutually perpendicular planes.
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s2, 30mins in 3 mutually perpendicular planes.
- Storage temperature range: -55 to 125°C

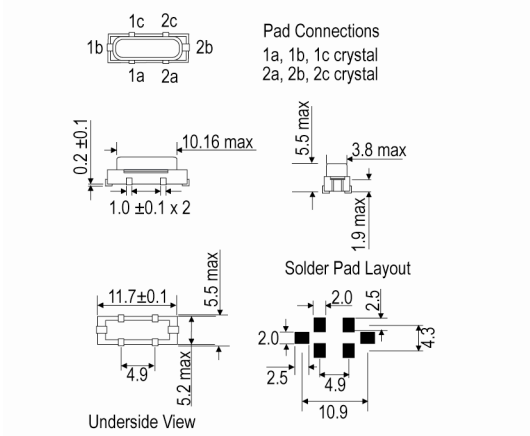
Ordering Information

- Frequency*
  Model*
  Frequency Tolerance (@25°C)*
  Frequency Stability (over operating temperature range)*
  Operating Temperature Range*
  Load Capacitance*
  Overtone*
- Example
  10.0MHz 88SMX
  50/50/–40 to 85C/10 FUND

Compliance

RoHS Status (2011/65/EU)	Compliant
REACh Status	Compliant
MSL Rating (JDEC-STD-033):	Not Applicable

Outline (mm)



Sales Office Contact Details:

UK: +44 (0)1460 270200 | France: 0800 901 383 | Email: info@iqdfrequencyproducts.com

Germany: 0800 1808 443 | USA: +1.760.318.2824 | Web: www.iqdfrequencyproducts.com

Packaging Details

- Pack Style: Bulk — Loose in bulk pack
  Pack Size: 100
- Pack Style: Cutt — In tape, cut from a reel
  Pack Size: 1
- Pack Style: Reel — Tape & reel in accordance with EIA-481-D
  Pack Size: 1,000

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
3.2MHz	3.999999MHz	0 to 50	±15	Fundamental	300
		-10 to 60	±20		
		-20 to 70	±20		
		-30 to 80	±25		
		-40 to 85	±30		
		-55 to 105	±100		
4.0MHz	5.499999MHz	0 to 50	±15	Fundamental	130
		-10 to 60	±20		
		-20 to 70	±20		
		-30 to 80	±25		
		-40 to 85	±30		
		-55 to 105	±100		
5.5MHz	7.999999MHz	0 to 50	±15	Fundamental	60
		-10 to 60	±20		
		-20 to 70	±20		
		-30 to 80	±25		
		-40 to 85	±30		
		-55 to 105	±100		
8.0MHz	40.0MHz	0 to 50	±15	Fundamental	40
		-10 to 60	±20		
		-20 to 70	±20		
		-30 to 80	±25		
		-40 to 85	±30		
		-55 to 105	±100		
26.0MHz	100.0MHz	0 to 50	±15	3rd Overtone	100
		-10 to 60	±20		
		-20 to 70	±20		
		-30 to 80	±25		
		-40 to 85	±50		
		-55 to 105	±100		

**Stability Maximum values ±500ppm*

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