

## Quartz Crystal Specification **87SMX**

## ISSUE 8; October 2016

## Description

 Similar, low cost drop on alternative to the 86SMX. Metal can package mounted on an SMD base.Resistance welded, hermetically sealed in an inert atmosphere, glass to metal seals on leads.

## **Frequency Parameters**

■ Frequency
 ■ Frequency Tolerance
 ■ Tolerance Condition
 3.2MHz to 100.0MHz
 ±10.00ppm to ±100.00ppm
 ② 25°C ±2°C

Frequency Stability ±15.00ppm to ±500.00ppm

Ageing ±5ppm typ per year @ 25°C

#### **Electrical Parameters**

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

- Storage Temperature Range: -55 to 125°C
- 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

## **Ordering Information**

Frequency\*

Model\*

Frequency Tolerance (@ 25°C)\*

Frequency Stability (over operating temperature range)\*

Operating Temperature Range\*

Load Capacitance\*

Overtone\*

(\*minimum required)

Example

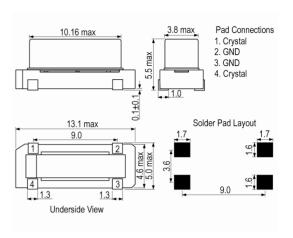
10.0MHz 87SMX

50/50/-40 to 85C/10 FUND

## Compliance

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

#### Outline (mm)



UK: +44 (0)1460 270200 Germany: 0800 1808 443 France: 0800 901 383 USA: +1.760.318.2824 Email: info@iqdfrequencyproducts.com Web: www.iqdfrequencyproducts.com



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## **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		

<sup>\*</sup>Stability Maximum values ±500ppm

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**Sales Office Contact Details:** 

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