

ISSUE 9; February 2023

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 3.01MHz to 100.0MHz
- Frequency Tolerance $\pm 30.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Tolerance Condition @ $25^\circ\text{C} \pm 2^\circ\text{C}$
- Frequency Stability $\pm 50.00\text{ppm}$ to $\pm 500.00\text{ppm}$
- Ageing $\pm 5\text{ppm}$ typ per year @ 25°C

Electrical Parameters

- Load Capacitance (CL) 10.0pF to 32.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level $50\mu\text{W}$ typ, $300\mu\text{W}$ max

Operating Temperature Ranges

- 10 to 60°C

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: 981m/s^2 , 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-500Hz, 98.1m/s^2 , 30mins in 3 mutually perpendicular planes

Manufacturing Details

- Please note that this part is NOT suitable for inverted reflow process. Please contact our application support team if this is necessary.
- Pins 2 and 3 are connected to each other and isolated from the crystal case.
- RoHS Terminations SnAgCu
- RoHS Reflow 260degC 10s

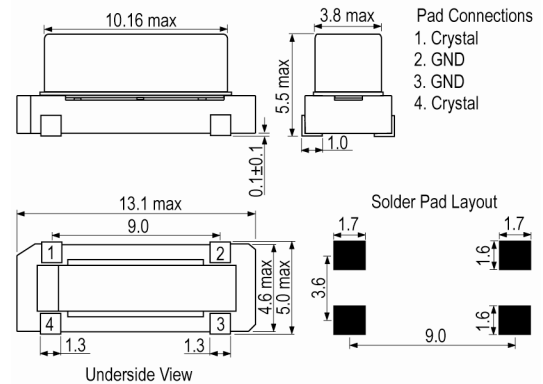
Ordering Information

- 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/-10 to 60C/12 FUND

Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Outline (mm)



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Packaging Details

- Pack Style: Cutt In tape, cut from a reel
Pack Size: 100
- 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 |
| 3.01MHz | 3.499999MHz | -10 to 60 | ±50 | Fundamental | 300 |
| 3.5MHz | 3.999999MHz | -10 to 60 | ±50 | Fundamental | 150 |
| 4.0MHz | 4.499999MHz | -10 to 60 | ±50 | Fundamental | 130 |
| 4.5MHz | 4.999999MHz | -10 to 60 | ±50 | Fundamental | 110 |
| 5.0MHz | 5.999999MHz | -10 to 60 | ±50 | Fundamental | 80 |
| 6.0MHz | 6.999999MHz | -10 to 60 | ±50 | Fundamental | 60 |
| 7.0MHz | 9.999999MHz | -10 to 60 | ±50 | Fundamental | 50 |
| 10.0MHz | 12.999999MHz | -10 to 60 | ±50 | Fundamental | 40 |
| 13.0MHz | 50.0MHz | -10 to 60 | ±50 | Fundamental | 30 |
| 26.0MHz | 100.0MHz | -10 to 60 | ±50 | 3OT | 100 |

*Stability Maximum values ±500ppm

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