SMX-3S

Miniature SMD Crystal

Features

- Applications: telecommunications, automotive, medical, navigation
- Wide frequency range: 8 to 240 MHz
- Highly shock and vibration resistant
- Reflow soldering @ 260 °C

**Parameter** | **Specification**
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Frequency range | 8 ~ 67 MHz fundamental, 55 ~ 240 MHz 3rd overtone
Mode of oscillation | AT-cut
Standard frequencies | 12.00, 13.00, 16.00, 19.20, 19.44, 20.48, 25.0, 32.0, 40.0
| 51.20, 61.44 & 230.30 MHz
Frequency tolerance | ±5 ~ ±30 ppm @ +25 °C
Frequency stability | ±10 ~ ±50 ppm vs. operating temperature range
Aging | ±1 ppm 1st year
Load capacitance | series or parallel resonance (CL = 8 ~ 32 pF)
Equivalent series resistance (ESR) | < 20 Ω @ 13 MHz
| < 12 Ω @ 61.44 MHz
Drive level | 10 ~ 100 µW
Operating temperature range | -20 ~ +70 °C commercial application
| -40 ~ +85 °C industrial application
| -40 ~ +125 °C automotive & avionic application
Storage temperature range | -55 ~ +125 °C
Packaging unit | tape & reel 1’000 or 2’000 pieces
Customer specifications on request

Pin function

- #1: crystal connection
- #2: GND
- #3: crystal connection
- #4: GND

Example for soldering pattern

*Do not design any conductive path between the pattern*

Example for IR reflow soldering temperature

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2002/95/EC RoHS compliant

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