SMX-2S

Miniature SMD Crystal

Features
- Applications: telecommunications, automotive, audio, navigation
- Wide frequency range: 8 to 240 MHz
- High shock and vibrational resistivity
- Reflow soldering @ 260 °C

Parameter | Specification
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Frequency range | 8 ~ 67 MHz fundamental
 | 50 ~ 180 MHz 3rd overtone
 | 120 ~ 240 MHz 5th overtone
Mode of oscillation | AT-cut
Standard frequencies | 9.60, 10.245, 12.80, 13.00, 16.384, 20.00, 25.00, 27.00, 32.00, 44.00 & 48.00 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) | < 25 Ω @ 13 MHz
 | < 15 Ω @ 32 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