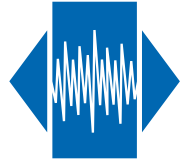


SMX-3S

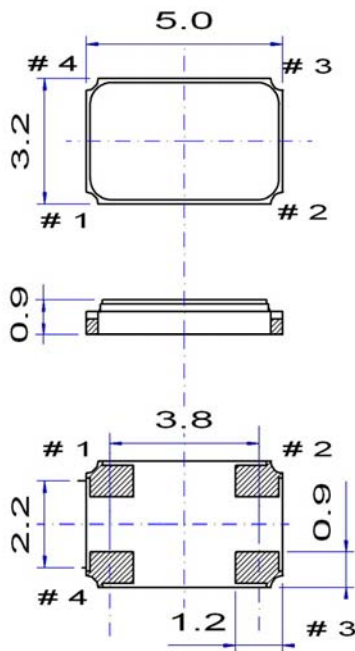


Miniature SMD Crystal

Features

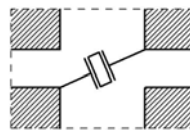
- Applications: telecommunications, automotive, medical, navigation
- Wide frequency range: 8 to 240 MHz
- Highly shock and vibration resistant
- Reflow soldering @ 260 °C

| Parameter | Specification | |
|------------------------------------|---|--|
| Frequency range | 8 ~ 67 MHz 55 ~ 240 MHz | fundamental 3 rd 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 | 1 st year |
| Load capacitance | series or parallel resonance (CL = 8 ~ 32 pF) | |
| Equivalent series resistance (ESR) | < 20 Ω < 12 Ω | @ 13 MHz @ 61.44 MHz |
| Drive level | 10 ~ 100 μW | |
| Operating temperature range | -20 ~ +70 °C -40 ~ +85 °C -40 ~ +125 °C | commercial application industrial application automotive & avionic application |
| Storage temperature range | -55 ~ +125 °C | |
| Packaging unit | tape & reel | 1'000 or 2'000 pieces |
| Customer specifications on request | | |

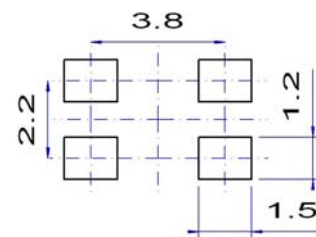


Pin function

- # 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

