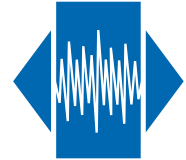


SMX-QS1

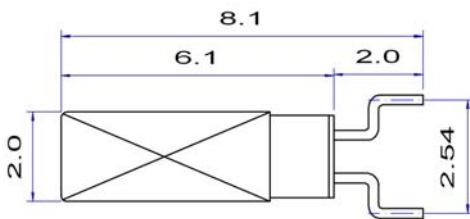


SMD Watch Crystal

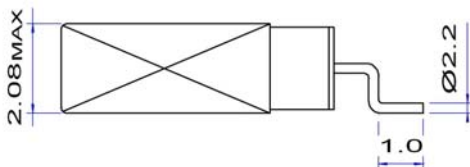
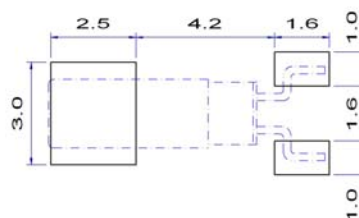
Features

- Applications: telecommunications, audio, medical
- Low profile metal package
- Reliable, low cost crystal
- Reflow soldering @ 260 °C

Parameter	Specification	
Nominal frequency	32.768 kHz	
Frequency tolerance	±20 ppm	@ +25 °C
Frequency stability vs. temperature	±100 ppm ±150 ppm	over -20 ~ +70 °C over -40 ~ +85 °C
Aging	±3 ppm	1 st year
Load capacitance	parallel resonance (CL = 8 ~ 12.5 pF)	
Series resistance	65 kΩ	Max.
Motional capacitance	2.1 fF	Typ.
Shunt capacitance	0.9 pF	Typ.
Drive level	0.1 μW Typical	< 0.5 μW
Turnover temperature	+25 °C	±5 °C
Temperature coefficient	-0.035 x (T-To) ² ppm/°C ²	
Operating temperature range	-20 ~ +70 °C -40 ~ +85 °C	commercial application industrial application
Storage temperature range	-55 ~ +125 °C	
Packaging unit	tape & reel	1'000, 3'000 or 9'000 pieces
Customer specifications on request		

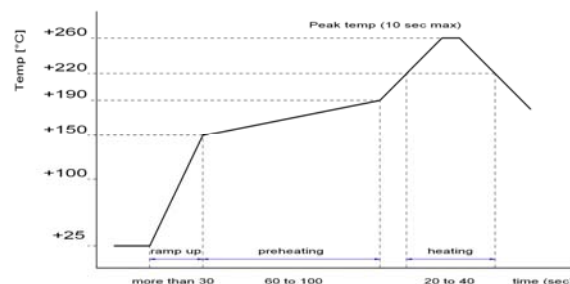


Example for soldering pattern



Do not design any conductive path between the pattern

Example for IR reflow soldering temperature



2002/95/EC RoHS compliant