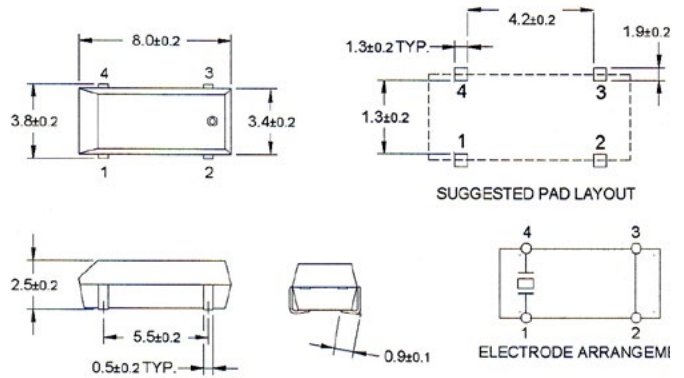


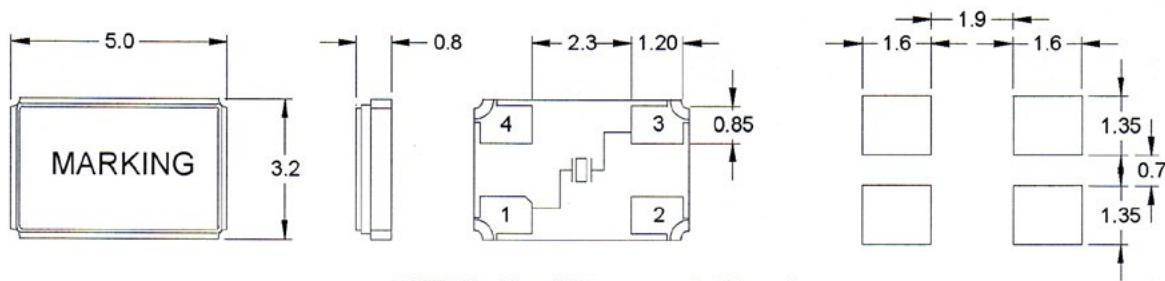
Surface Mount Watch Crystal - Part Number 58-XMW-CM2005

Specifications:

Nominal Frequency: 32.768 KHz
 Frequency Tolerance at 25° C: ±20ppm
 Operating temperature range: -10°C to 60 °C
 Storage Temperature range: -55°C to 125° C
 Freq vs temp characteristics: $-0.034 \pm 0.006\text{ppm} / ^\circ\text{C}^2$ Typical
 Temp Coeff turnover temperature: 25°C Typical
 Equivalent series resistance: 50kΩ
 Load capacitance: 12.5pF Typical
 Drive level: 1μW Maximum
 Shunt capacitance: 1.35pF Typical
 Aging at 25°C: ±3ppm Maximum / first year



Surface Mount Watch Crystal - Part Number 58-QSMC-3120



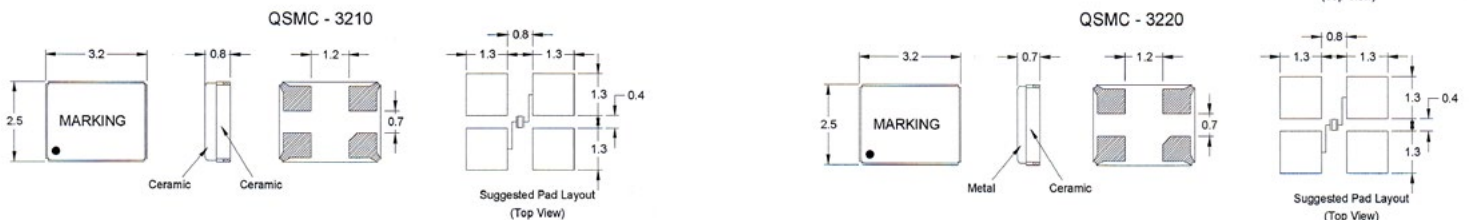
NOTE: Pin #2 and #4 are connected through cover, if case is connected to Ground frequency may drift.

Suggested Pad Layout (Top View)

Specifications:

Frequency Fundamental	Freq. Tol.	Freq. Stab	Operating Temp	ESR	Drive Level Typical	CL
12.0MHz~40.0MHz	±50ppm 25°C	±50ppm (25°C)	-10°C~ + 60°C	60Ω	0.1mW	16pF
40.0MHz~67.0MHz	-	±100ppm (25°C)	-10°C~ + 60°C	40Ω	0.1mW	16pF

Surface Mount Crystals - Part No. 58-QSMC3210/3220



Frequency Ranges	Osc Mode	CL	ESR
13.00 ~ 15.99MHz	Fundamental	16pF	150Ω
16.00 ~ 50.00MHz	Fundamental	16pF	90Ω

Specifications:

	Frequency Fundamental Range	Frequency Tolerance	Frequency Stability	Operating Temperature
58-QSMC-3220	13MHz~ 50MHz	± 10ppm 25° C	± 10ppm (Ref. to 25°C)	-10°C~+60°C
58-QSMC-3210/3220	13MHz~ 50MHz	± 50ppm 25° C	± 50ppm (Ref. to 25°C)	Drive Level(Typical): 0.1mW