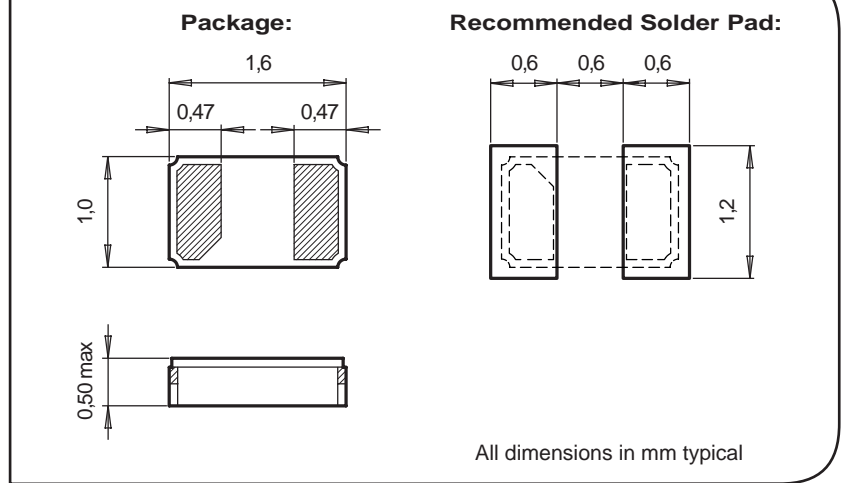


CM9V-T1A

Tuning Fork Crystal 32.768 kHz



DIMENSIONS



APPLICATIONS

IoT
 Metering
 Industrial
 Health Care
 Ultra Small Devices
 Wearables, Portables

DESCRIPTION

The CM9V-T1A is a low frequency SMT Quartz Crystal Unit that incorporates a tuning fork Quartz Crystal Resonator. It operates under vacuum in a hermetically sealed ceramic package with metal lid.

FEATURES

Ultra small size (1.6 × 1.0 × 0.5 mm).
 Outstanding hermetic sealing with gold-tin preform.
 High stability and low aging guaranteed by hermetic sealing.
 Available for extended operating temperature range.
 Lightweight (2.4 mg).
 High shock and vibration resistant.
 100% Pb-free, RoHS-compliant.

ELECTRICAL CHARACTERISTICS AT 25°C

Standard Frequency	¹⁾ F _L	32.768	kHz
Load capacitance	²⁾ C _L	4.0 / 6.0 / 7.0 / 9.0 / 12.5	pF
Frequency tolerance	³⁾ ΔF/F	±20	ppm
	ΔF/F	±100	ppm
Series resistance typ./max.	R _S	70 / 90	kΩ
Motional capacitance typ.	C ₁	6.3	fF
Static capacitance typ.	C ₀	1.4	pF
Drive level max.	P	0.5	μW
Insulation resistance min.	R _i	500	MΩ
Aging first year max.	ΔF/F	±3	ppm
Turnover temperature	T ₀	25 ±5	°C
Frequency vs. temperature	ΔF/F ₀	-0.035 ppm/°C ² (T - T ₀) ² ±10%	ppm

- 1) Other frequencies on request.
- 2) Other load capacitances on request.
- 3) Tighter frequency tolerances on request.