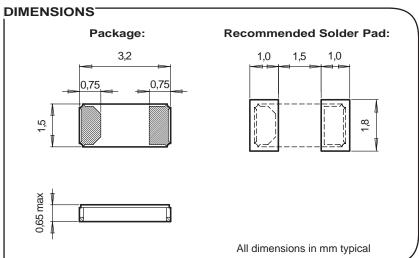


Tuning Fork Crystal 32.768 kHz





APPLICATIONS

IoT Metering Industrial Automotive Health Care Wearables, Portables

DESCRIPTION

The CM7V-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

Outstanding hermetic sealing with gold-tin preform. High stability and low aging guaranteed by hermetic sealing. Available for extended operating temperature range. Small size, low profile, lightweight (10.3 mg).

High shock and vibration resistant.

100% Pb-free, RoHS-compliant.

Automotive qualification according to AEC-Q200 available.

ELECTRICAL CHARACTERISTICS AT 25°C

Standard Frequencies 32.768 kHz / 100.000 kHz	1)	FL	32.768	kHz
Load capacitance	2)	C _L	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	50 / 70	kΩ
Motional capacitance typ.		C ₁	3.7	fF
Static capacitance typ.		C ₀	1.2	pF
Drive level max.		Р	1.0	μW
Insulation resistance min.		R _i	500	ΜΩ
Aging first year max.		ΔF/F	±3	ppm
Turnover temperature		T ₀	25 ±5	°C
Frequency vs. temperature		ΔF/F ₀	$-0.035 \text{ ppm/}_{^{\circ}\text{C}^{2}} (\text{T - T}_{0})^{2} \pm 10\%$	ppm

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



