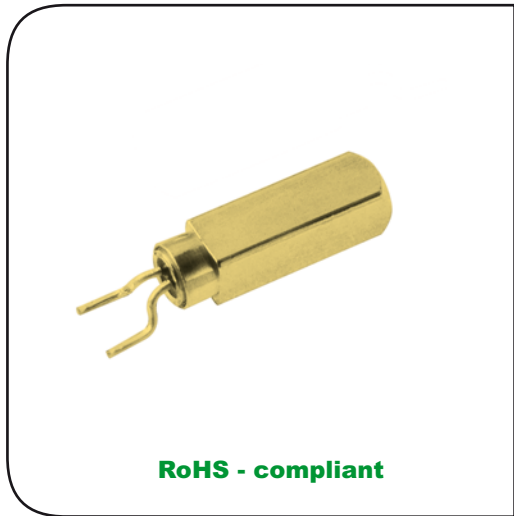
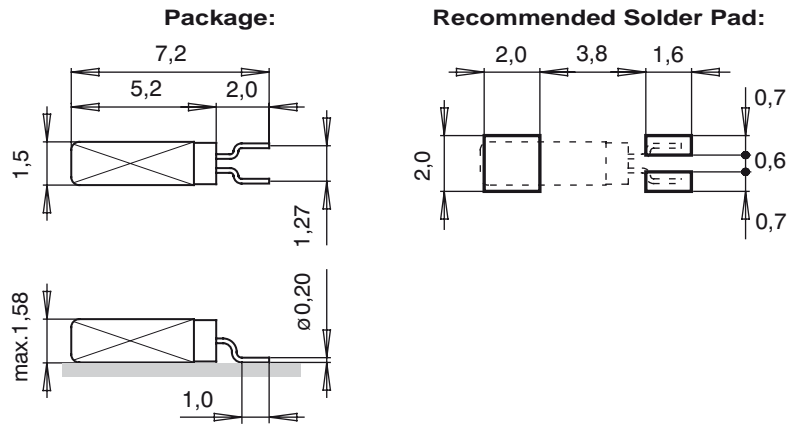


MS2V-T1S

Tuning Fork Crystal 30 kHz – 200 kHz



DIMENSIONS



All dimensions in mm typical

Small SMT package
Package height 1.58 mm max.
Formed leads for SMD mounting
Industrial temp. range
Very price competitive
High stability
Low aging
Low power consumption
High shock and vibration resistance

DESCRIPTION:

The MS2V-T1S is a miniature square-bodied 1.5 x 1.5 x 5 mm metal-can package with formed leads, intended for surface mounting and reflow soldering.

Within the package is a high-quality tuning fork quartz crystal resonator, manufactured with a precision high-volume photolithographic process and operating in the fundamental mode.

Due to highly automated, large-volume production, the MS2V-T1S is very price competitive and ideal for any consumer and industrial applications.

For pick-and-place equipment, the crystals are supplied in 16 mm tape: 13" (330 mm) reel with 9'000 crystals

ELECTRICAL CHARACTERISTICS AT 25°C:

Frequency Range	F_L	30–200	kHz
Load capacitance ¹⁾	C_L	7.0 / 9.0 / 12.5	pF
Frequency tolerance ²⁾	$\Delta F/F$	+/-20	ppm
	$\Delta F/F$	+/-30	ppm
	$\Delta F/F$	+/-100	ppm
Drive level max.	P	1.0	μW
Insulation resistance min.	R_i	500	M Ω
Aging first year max.	$\Delta F/F$	+/-3	ppm

Frequency Example ³⁾	F_L	32.000	32.768	75.000	kHz
Series resistance typ./max.	R_s	50 / 65	50 / 65	19 / 30	k Ω
Motional capacitance typ.	C_1	2.3	2.1	1.45	fF
Static capacitance typ.	C_0	0.9	0.9	0.9	pF
Turnover temperature	T_0	25 +/-5	25 +/-5	22 +/-5	$^{\circ}C$
Frequency vs. temperature	$\Delta F/F_0$	$-0.035 \text{ ppm}/^{\circ}C^2 (T - T_0)^2 \text{ +/-} 10\%$			ppm

1) For standard and other load capacitances consult factory.

2) Tighter and wider frequency tolerances on request.

3) Values for other frequencies consult factory.

STANDARD FREQUENCIES:

Frequency kHz				
32.000	32.768	38.400	75.000	76.800
77.500				
Other frequencies on request				

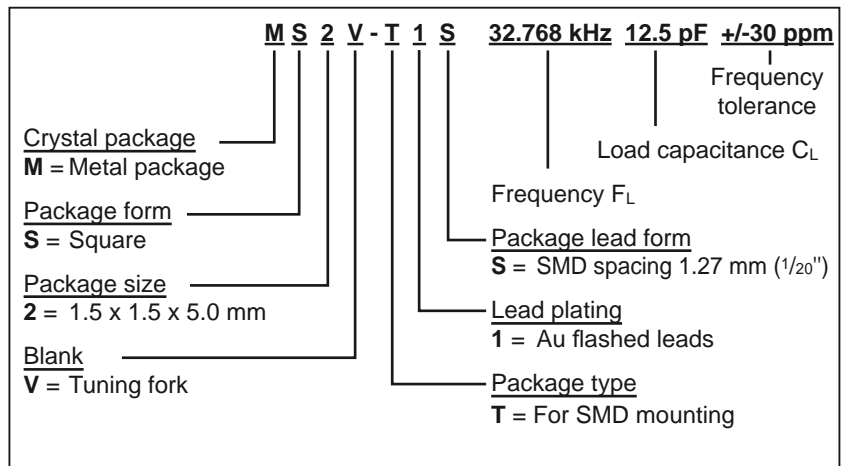
**ENVIRONMENTAL
CHARACTERISTICS:**

		Conditions	Max. Dev.
Storage temp. range		-55 to +85°C	
Operating temp. range		-40 to +85°C	
Shock resistance	$\Delta F/F$	5000 g, 0.3 ms, 1/2 sine	+/-5 ppm
Vibration resistance	$\Delta F/F$	20 g / 10-2000 Hz	+/-5 ppm

**TERMINATIONS AND
PROCESSING:**

Type	Termination	Processing
MS2V-T1S	Can: Au flashed Leads: Formed leads Au flashed	For SMD mounting Reflow soldering 260°C / 20 sec. max

**PART NUMBER/
ORDERING INFORMATION
EXAMPLE:**



All specifications subject to change without notice. 03.07



Micro Crystal
Div. of ETA SA
Mühlestrasse 14
CH-2540 Grenchen
Switzerland

Tel. +41 32 655 82 82
Fax +41 32 655 82 83
sales@microcrystal.ch
www.microcrystal.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Micro Crystal manufacturer](#):

Other Similar products are found below :

[RV-3049-C2-EVALUATION-BOARD-OPTION-B](#) [RV-3029-C2-EVALUATION-BOARD-OPTION-B](#) [RV-8523-C3-EVALUATION-BOARD](#) [OV-7604-C7-EVALUATION-BOARD](#) [RV-2251-C3-EVALUATION-BOARD](#) [RV-8803-C7-EVALUATION-BOARD](#) [RV-3028-C7-ON BOARD 32.768kHz TA QC](#) [CM7V-T1A-32.768kHz-9pF-20PPM-TC-QC](#) [CC5V-T1A-32.768kHz-12.5pF-20PPM-TB-QC](#) [RV-3029-C3-TA-QC-OPT.A](#) [RV-2123-C2-TA-QC-020](#) [CC4V-T1A 32.768KHZ +-20PPM 9PF](#) [RV-3049-C3-TB-QA-OPT.B](#) [RV-3049-C2-32.768k-OPTION-B-TB-QA](#) [RV-3049-C3-TB-QA-OPT.A](#) [RV-3049-C2-TB-QA-OPT.A](#) [RV-8564-C3-TA-QC-020](#) [RV-3029-C2-TB-QA-OPT.A](#) [RV-3029-C3-TB-QA-OPT.B](#) [CM7V-T1A-32.768kHz-12.5pF-20PPM-TC-QC](#) [CC7V-T1A-32.768k-12.5pF-20PPM-TA-QA](#) [CC5V-T1A 32.768KHZ +-20PPM 9PF](#) [RV-3029-C2-32.768k-OPTION-A-TB-QA](#) [RV-3029-C3-32.768kHz-OPTION-B-TA-QC](#) [RV-3029-C3-32.768k-OPTION-A-TB-QA](#) [CC7V-T1A-32.768k-9pF-20PPM-TC-QA](#) [RV-8523-C3-TA-QC-020](#) [CM7V-T1A-Low-ESR-32.768kHz-6pF-20-TA-QC](#) [RV-4162-C7-32.768k-20PPM-TA-QA](#) [CC7V-T1A-32.768k-7pF-20PPM-TB-QA](#) [CM7V-T1A-100.000kHz-9pF-100PPM-TA-QC](#) [CM7V-T1A-32.768k-9pF-20PPM-TC-QA](#) [CC7V-T1A-32.768kHz-9pF-20PPM-TA-QC](#) [RV-3049-C3-32.768kHz-OPTION-B-TA-QC](#) [MS1V-T1K 32.768KHZ +-20PPM 10PF](#) [RV-3129-C3 32.768kHz OPTION B TB QA](#) [CC7V-T1A-32.768k-12.5pF-20PPM-TC-QA](#) [RV-1805-C3-32.768kHz-2PPM-TA-QC](#) [CM7V-T1A-32.768kHz-7pF-100PPM-TA-QC](#) [CC7V-T1A-32.768kHz-7pF-20PPM-TB-QC](#) [OM-0100-C8-100.00kHz-20PPM-TA-QC](#) [RV-3029-C3-32.768k-OPTION-B-TB-QA](#) [CM7V-T1A-32.768kHz-12.5pF-100PPM-TC-QC](#) [CM7V-T1A-Low-ESR-32.768k-9pF-20-TB-QA](#) [RV-3149-C3 32.768kHz OPTION B TB QA](#) [CM7V-T1A-32.768kHz-9pF-20PPM-TA-QC](#) [OM-7605-C8-20PPM-TA-QA](#) [RV-4162-C7-TA-QC-020](#) [CM7V-T1A-Low-ESR-32.768k-7pF-10-TB-QA](#) [RV-3149-C3 32.768kHz OPTION B TA QC](#)