CMOS TCXO 7.0 x 5.0 x 2.3mm SMD

- **Miniature 7.0 x 5.0 x 2.5mm SMD package**
- **Frequency range: 1.25MHz to 40MHz**
- **Supply voltage 2.5, 3.0, 3.3 or 5.0 Volts**
- **Frequency stability from ±0.5ppm**
- **RoHS compliant**

DESCRIPTION

M572T series TCXOs are packaged in a miniature 4 pad ceramic SMD package. With squarewave (CMOS) output, tolerances are available from ±0.5ppm. The part has a 0.01µF decoupling capacitor built in.

SPECIFICATION

Product Series Code	
Standard TCXO:	M572T
Voltage-controlled TCXO (VCTCXO):	VM572T
Frequency Range:	1.25MHz to 40.0MHz
Output Waveform:	Square wave, HCMOS
Initial Calibration Tolerance	<±2ppm at 25°±2°C
Standard Frequencies:	10.0, 12.8, 13.0, 14.4, 15.36, 16.384, 19.2, 19.440, 19.68, 20.0, 25.0, 27.0 *(Partial list)*
Operating Temperature Range:	*See table*
Frequency Stability	
vs. Ageing:	±1.0 ppm max. first year
vs. Voltage Change:	±0.3 ppm max. ±5% change
vs. Load Change:	±0.3 ppm max. ±10% change
vs. Reflow:	±1ppm max. for one reflow (*Measured after 24 hours*)
Supply Voltage:	+2.5, 3.0 or 3.3Volts
Output Logic Levels	
Logic High '1':	90% V_{DD} minimum
Logic Low '0':	10% V_{DD} maximum
Rise/Fall Times:	10ns maximum
Duty Cycle:	50±10% standard, 50±5% available
Start-up Time:	5ms typical, 10ms max.
Current Consumption:	6mA maximum
Output Load:	15pF
Storage Temperature:	-50° to +100°C
RoHS Status:	RoHS Compliant and lead free

FREQUENCY STABILITY vs TEMPERATURE

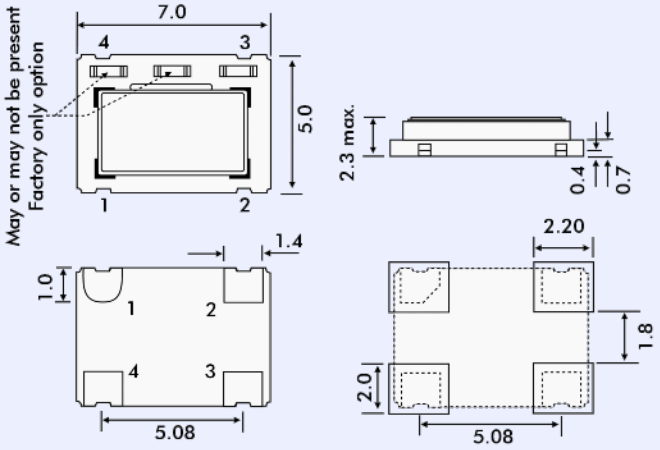
Frequency Stability (ppm)		±0.5	±1.0	±1.5	±2.0	±2.5
Temperature Range (°C)	0° ~ +50°C	✓	✓	✓	✓	✓
	-10° ~ +60°C	ASK	✓	✓	✓	✓
	-20° ~ +70°C	x	✓	✓	✓	✓
	-30° ~ +75°C	x	✓	✓	✓	✓
	-30° ~ +85°C	x	✓	✓	✓	✓
	-40° ~ +85°C	x	ASK	✓	✓	✓

✓ = available, x = not available, ASK = call Technical Sales

SSB PHASE NOISE at 25°C

Offset:	10Hz	100Hz	1kHz	10kHz	100kHz
Fr. 10.000MHz	-96dBc/Hz	-122dBc/Hz	-138dBc/Hz	-145dBc/Hz	-150dBc/Hz

M572T - OUTLINE AND DIMENSIONS



VM572T VOLTAGE CONTROL SPECIFICATION

Control Voltage:	Standard = +1.5±1.0Volts for all input voltages. *(Contact technical sales if +2.5±2.0 Volts is required.)*
Frequency Deviation:	±5.0 ppm min. Vcon = +1.5±1.0V
Slope Polarity:	Positive *(increase of control voltage increases output frequency.)*
Input Impedance:	50MΩ min.
Modulation Bandwidth:	20.0kHz min.
Linearity:	±10% max.

PART NUMBERING

Example: **M572T33-10.000-2.5/-30+75**

Series Description
TCXO = M572T
VCTCXO = VM572T
Supply Voltage
25 = 2.5VDC
3 = 3.0VDC
33 = 3.3 VDC
5 = 5.0 VDC
Frequency (MHz)
Stability over OTR (±ppm)
Operating Temperature Range (OTR) (°C)
(*Lower and upper limits*)

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