

High Frequency HCMOS 7.0 x 5.0 x 2.5mm SMD

- **Miniature 7.0 x 5.0 x 2.3mm SMD package**
- **Frequency range: 27.0MHz to 200.0MHz**
- **Supply voltage +3.0V or +3.3VDC**
- **Frequency stability from ± 1 ppm over -30 to +75°C**

DESCRIPTION

MV572T series TCXOs are packaged in a miniature 4 pad ceramic SMD package. With squarewave (CMOS) output, tolerances are available from ± 1.0 ppm over -30° to +75°C. The part has a 0.01 μ F decoupling capacitor built in.

SPECIFICATION

Product Series Code	TCXO: MV572T
Voltage-controlled TCXO (VCTCXO):	VMV572T
Frequency Range:	27.0MHz to 200.0MHz
Output Waveform:	Square wave, HCMOS
Initial Calibration Tolerance	
Models with mechanical trimmer:	< ± 1 ppm at 25 \pm 2°C
Models without mech. trimmer:	< ± 2 ppm at 25 \pm 2°C
Standard Frequencies:	30.0, 32.768, 38.880, 40.0, 50.0, 54.0, 64.0, 65.536, 77.76, 80.0, 100.0, 155.52, and 160.0MHz <i>(Partial list)</i>
Operating Temperature Range:	<i>See table</i>
Frequency Stability	
vs. Ageing:	± 1.0 ppm max. first year
vs. Voltage Change:	± 0.3 ppm max. $\pm 5\%$ change
vs. Load Change:	± 0.3 ppm max. $\pm 10\%$ change
vs. Reflow:	± 1 ppm max. for one reflow <i>(Measured after 24 hours)</i>
Supply Voltage:	+3.3 Volts
Output Logic Levels	
Logic High '1':	90% V _{DD} minimum
Logic Low '0':	10% V _{DD} maximum
Current Consumption:	40mA max. <i>Frequency dependant</i>
Rise/Fall Times:	1.2ns typical
Duty Cycle:	50 \pm 5%
Start-up Time:	5ms typical, 10ms max.
Output Load:	15pF
Storage Temperature:	-50° to +125°C
RoHS Status:	RoHS Compliant and lead free

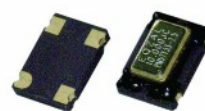
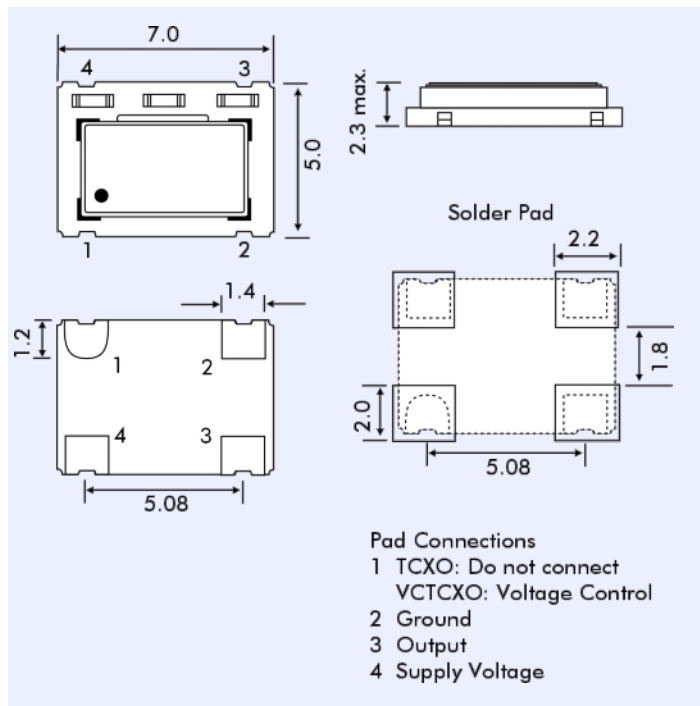
FREQUENCY STABILITY vs TEMPERATURE

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° ~ +80°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. 77.760MHz	-80dBc/Hz	-110dBc/Hz	-135dBc/Hz	-130dBc/Hz	-132dBc/Hz
Fr. 155.52MHz	-80dBc/Hz	-110dBc/Hz	-125dBc/Hz	-120dBc/Hz	-125dBc/Hz


MV572T - OUTLINE AND DIMENSIONS

VMV572T VOLTAGE CONTROL SPECIFICATION

Control Voltage:	Standard = +1.5 \pm 1.0 Volts
Frequency Deviation:	± 6.0 ppm min.
Slope Polarity:	Positive (<i>increase of control voltage increases output frequency.</i>)
Input Impedance:	2M Ω min.
Modulation Bandwidth:	25kHz min.
Linearity:	$\pm 10\%$ max.

PART NUMBERING PROCEDURE

Example: **_MV572T33-40.000-2.5/-30+75**

Series Description
 TCXO = MV572T
 VCTCXO = VMV572T
 Supply Voltage
 3 = 3.0VDC
 33 = 3.3VDC
 Frequency (MHz)
 Stability over OTR (\pm ppm)
 Operating Temperature Range (OTR) (°C)
(Lower and upper limits)