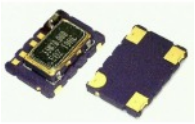
EUROQUARTZ

EM572T TCXO

CMOS 7 x 5 x 2.3mm SMD, MHz Range 1.25MHz to 40.0MHz

- **Miniature 7 x 5 x 2.3mm SMD package**
- **Frequency range: 1.25MHz to 40.0MHz**
- **Supply voltage 2.5, 3.0, 3.3 or 5.0 Volts**
- **Frequency stability from ±0.5ppm**



DESCRIPTION

EM572T 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.

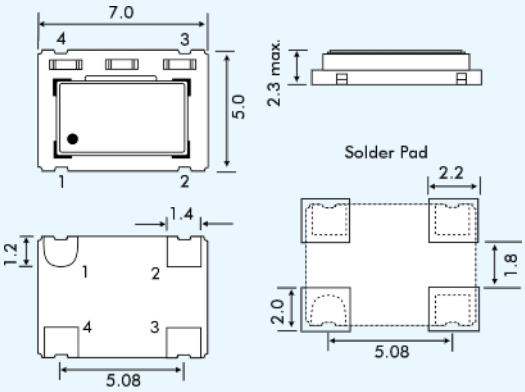
SPECIFICATION

Product Series Code	
TCXO:	EM572T
VCTCXO:	VEM572T
Frequency Range:	1.25MHz to 40.0MHz
Output Waveform:	Squarewave, HCMOS
Initial Calibration Tolerance:	<±2.0ppm at +25°±2°C
Standard Frequencies:	10.0, 12.8, 13.0, 14.47456, 16.384, 19.2, 19.440, 19.68, 20.0, 25.0 and 27.0MHz (*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:	±1.0ppm max. for one reflow (*Measured after 24 hours*)
Supply Voltage:	+2.5, +3.0, +3.3 or +5.0V
Output Logic Levels:	Logic High: 90% Vdd min. Logic Low: 10% Vdd max.
Rise and Fall Times:	10ns max.
Duty Cycle:	50%±10% standard, 50%±5% option
Start-up Time:	5ms typ., 10ms max.
Current Consumption	
at +2.5V supply:	10mA max.
at +3.0V supply:	13mA max.
at +3.3V supply:	13mA max.
at +5.0V supply:	27mA max.
Output Load:	15pF
Storage Temperature:	-55~+125°C

SSB PHASE NOISE at 25°C, 15pF

Offset: dBc/Hz	10Hz	100Hz	1kHz	10kHz	100kHz
EM572T33 10.000MHz	-96	-122	-138	-145	-150

EM572T - OUTLINES AND DIMENSIONS



VEM572T VOLTAGE CONTROL SPECIFICATION

Control Voltage Centre:	Standard = +1.5±1.0 Volts for all input voltages.
Frequency Deviation:	±5 ppm (Vcon = +1.5±1.0V)
Slope Polarity:	Positive *(increase of control voltage increases output frequency.)*
Input Impedance:	50MΩ minimum
Modulation Bandwidth:	20kHz minimum
Linearity:	±10% maximum

FREQUENCY STABILITY

Frequency Stability (ppm)		±0.5	±1.0	±1.5	±2.0	±2.5	±3.0
Temperature Range (°C)	0 ~ +50	✓	✓	✓	✓	✓	✓
	-10 ~ +60	ASK	✓	✓	✓	✓	✓
	-20 ~ +70	x	✓	✓	✓	✓	✓
	-30 ~ +75	x	✓	✓	✓	✓	✓
	-40 ~ +85	x	ASK	✓	✓	✓	✓

✓ = available, x = not available, ASK = call Tech. Sales

PART NUMBERING PROCEDURE

Example: **EM572T33-27.000-2.5/-30+75**

Series Description
TCXO = EM572T
VCTCXO = VEM572T
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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