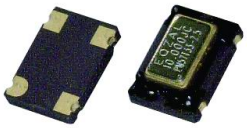
EM572T Series TCXO

HCMOS 7 x 5 x 2.3mm SMD, kHz Range

- **Miniature 7 x 5 x 2.3mm SMD package**
- **Frequency range: 20.0kHz to 52.7kHz including 32.768kHz**
- **Supply voltage 3.3 or 5.0 Volts**
- **Frequency stability from ±1ppm over -30 to +75°C**
- **RoHS compliant**



RoHS

DESCRIPTION

EM572T series TCXOs are packaged in a miniature 4 pad ceramic SMD package. With squarewave (CMOS) output, tolerances are available from ±1.0ppm over -30° to +75°C. The part has a 0.01µF decoupling capacitor built in.

SPECIFICATION

Product Series Code	
TCXO:	EM572T
VCTCXO:	VEM572T
Frequency Range:	20.0kHz to 52.7kHz
Standard Frequency:	32.768kHz
Output Waveform:	Squarewave, HCMOS
Initial Calibration Tolerance:	<±2.0ppm at +25°±2°C
Operating Temperature Range:	*See table*
Frequency Stability	
vs. Ageing:	±1.0 ppm max. first year
vs. Voltage Change:	±0.2 ppm max. ±5% change
vs. Load Change:	±0.2 ppm max. ±10% change
vs. Reflow (SMD type):	±1.0ppm max. for one reflow (*Measured after 24 hours*)
Supply Voltage:	+2.8, +3.0, +3.3 or +5.0V (*See table*)
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:	10ms max.
Current Consumption:	*See table below*
Output Load:	15pF
Storage Temperature:	-55~+125°C

FREQUENCY STABILITY

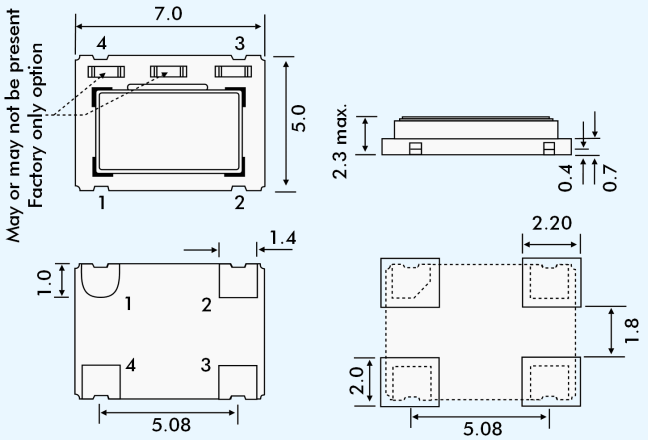
Frequency Stability (ppm)		±0.5	±1.0	±1.5	±2.0	±2.5
Temperature Range (°C)	0 ~ +50	✓	✓	✓	✓	✓
	-10 ~ +60	✓	✓	✓	✓	✓
	-20 ~ +70	✓	✓	✓	✓	✓
	-30 ~ +75	ASK	✓	✓	✓	STD
	-40 ~ +85	x	ASK	✓	✓	✓

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

CURRENT CONSUMPTION

Frequency	+3.3 V
32.768kHz	8.0mA
50kHz	12mA

EM572T - OUTLINES AND DIMENSIONS



Pad Connections:
1. VCTCXO: Voltage control
   TCXO: Not connected
2. Ground
3. Output
4. Supply Voltage

VEM572T 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 ppm (Vcon = +1.5±1.0V)
Slope Polarity:	Positive *(increase of control voltage increases output frequency.)*
Input Impedance:	1MΩ minimum
Modulation Bandwidth:	20kHz minimum
Linearity:	±10% maximum

PART NUMBERING PROCEDURE

Example: **EM572T33-32.768k-2.5/-30+75**

Series Description
TCXO = EM572T
VCTCXO = VEM572T
Supply Voltage
33 = 3.3 VDC
5 = 5.0 VDC
Frequency (kHz)
Stability over OTR (±ppm)
Operating Temperature Range (OTR) (°C)
Lower and upper limits.

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