EURO QUARTZ

(V)EML572T TCXO

CMOS 7 x 5 x 2.5mm SMD TCXO

40MHz to 156.0MHz
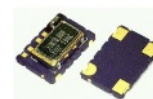
- Miniature 7 x 5 x 2.6mm SMD package
- Frequency range: 40MHz to 156.0MHz
- Supply voltage 2.5, 3.0, 3.3 or 5.0 Volts
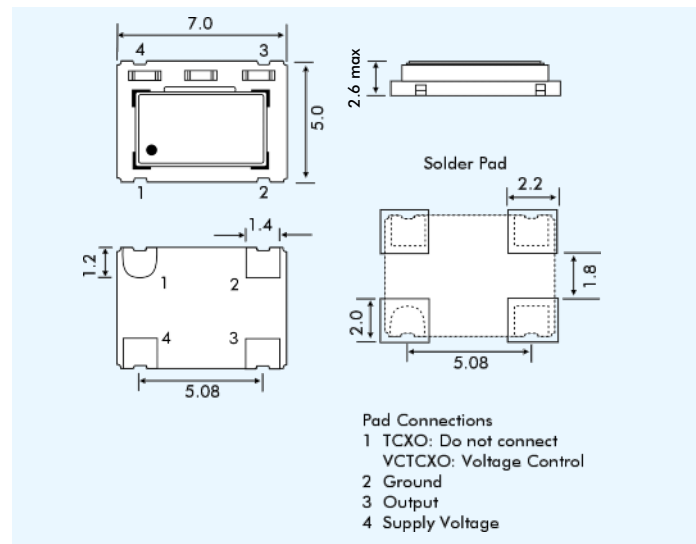- Frequency stability from ±0.5ppm

DESCRIPTION

EML572T series TCXOs are packaged in a miniature 4 pad ceramic SMD package. With squarewave HCMOS output, tolerances are available from ±0.5ppm.

SPECIFICATION

Product Series Code	
TCXO:	EML572T
VCTCXO:	VEML572T
Frequency Range:	40.0MHz to 156.0MHz
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:	±0.3 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:	+2.8, +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 (add "S" to end of part no.)
Start-up Time:	5ms typ., 10ms max.
Current Consumption	
at 77.760MHz:	32mA max.
at 155.520MHz:	50mA max.
Output Load:	15pF
Storage Temperature:	-55~+125°C

(V)EML572T - OUTLINES AND DIMENSIONS

Pad Connections
1 TCXO: Do not connect
   VCTCXO: Voltage Control
2 Ground
3 Output
4 Supply Voltage

VEML572T 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 to +50	✓	✓	✓	✓	✓	✓
	-10 to +60	ASK	✓	✓	✓	✓	✓
	-20 to +70	x	✓	✓	✓	✓	✓
	-30 to +75	x	✓	✓	✓	✓	✓
	-30 to +85	x	✓	✓	✓	✓	✓

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

SSB PHASE NOISE at 25°C, 15pF

Offset: dBc/Hz	10Hz	100Hz	1kHz	10kHz	100kHz
EM572T33 77.760MHz	-74	-99	-98	-95	-90
EM572T33 155.52MHz	-68	-96	-100	-99	-90

PART NUMBERING PROCEDURE

Example: **EML572T33-40.000-2.5/-30+75**

Series Description
TCXO = EML572T
VCTCXO = VEML572T
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.

Issue 2