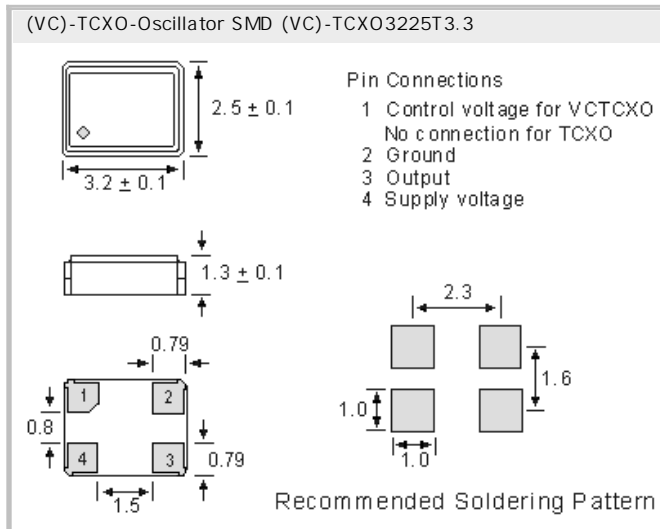
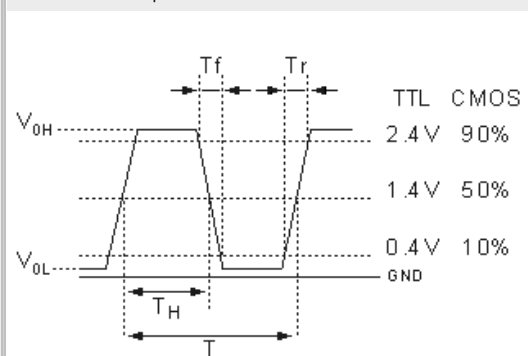


TCXO-Oscillator SMD TCXO3225T3.3 3.3V  
CMOS/TTL

- Temperature Compensated Crystal Oscillators
- SMD in ceramic case (3.2 x 2.5 x 1.0) mm
- CMOS/TTL Square Wave Output;  
Wave form code is " T "
- on Tape & Reel
- RoHS conform; Lead-free product



CMOS/TTL Output Wave Form



## Specifications

Holder Type:	TCXO3225T3.3 3.3V (Voltage code is " 3.3 ")
Frequency Range:	8.192 MHz to 40.0 MHz
Frequency Stability:	$\pm 0.5\text{ppm}$ to $\pm 3.0\text{ppm}$
Standard Frequencies (Part list):	10.0, 12.8, 13.0, 14.4, 15.36, 16.384, 19.2, 19.44, 19.68, 25.0, 20.0, 27.0, 38.88, 40.0
Freq. Stability vs Temperature:	0° to 50°C ( $\pm 0.5\text{ppm}$ ) to -40 to +85°C ( $\pm 1.0$ to $\pm 3.0\text{ppm}$ )
Input Voltage:	+ 3.3V $\pm 10\%$
Freq. Stability vs Aging:	$\pm 1.0$ ppm, first year at 25 °C
Freq. Stability vs Voltage Change:	$\pm 0.3$ ppm, for a $\pm 5\%$ input voltage change
Freq. Stability vs Load Change:	$\pm 0.3$ ppm, for a $\pm 10\%$ load condition change
Current Consumption:	6mA (Freq. dependent)
Output Load:	15pF
Voltage Control on pin 1 (EFC):	Electronic Frequency Tuning (EFC) Optionally
Pin 1 Options VCTCXO only (EFC):	Control Voltage: Standard +1.5V $\pm 1.0\text{V}$ for all input voltages. Slope Polarity: Positive slope. Positive voltage for positive frequency shift. Input Impedance: 50kOhm min.; Linearity $\pm 10\%$ max. Modulation Bandwidth (at-3 dB) : 20kHz min.
Frequency Deviation Range (EFC):	$\pm 5.0\text{ppm}$ (min.) with $V_{con} = +1.5\text{V} \pm 1.0\text{V}$ (Optionally)
Output Logic Levels:	Logic High "1" : 90% Vdd min. // Logic Low "0" : 10% Vdd min.
Output Symmetry (Duty Cycle):	40/60% normal, 45/55% tight at 50%
Rise/Fall Time CMOS:	10.0ns (max.) Measured between 20% and 80% Vdd of the wave form (CL = 15pF)
Start Up Time:	10 ms (max.); 5ms (typ.)
Phase Noise (10.00MHz 3.3V):	- 96dBc/Hz at 10Hz offset -122dBc/Hz at 100Hz offset -138dBc/Hz at 1kHz offset -145dBc/Hz at 10kHz offset -150dBc/Hz at 100kHz offset
Storage Temperature:	-55 to +105°C
Reflow Condition:	260°C max. for 10 sec.

## GERMANY:

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