

VT Type Voltage Controlled Crystal Oscillator

RoHS Compliant Standard

FEATURE

1. Typical 7.0 x 5.0 x 1.6mm 6 Pads ceramic SMD package.
2. Tight symmetry (45 to 55%) available.
3. Packing: Tape & Reel, 1000/3000 pcs per Reel, 1~99 pcs per Bulk/Tape.



Actual Size

ORDERING INFORMATION

V	T	C	U	P	C	J	-	N	F	-	?	
VCXO	Package (mm)	Supply Voltage(V)	Tri-State Function	Freq. Stability / Pulling Range (ppm)	Temp. Range (°C)	Output Logic and Symmetry		Dash	Appearance	Lead Free	Dash	Freq.(MHz)
	7x5	C: 5 E: 3.3	U: Input to Pin 2 R: Input to Pin 5	M: ±25/±100 P: ±50/±100	I: -10~+60 C: -20~+70 L: -40~+85	CMOS 15pF	50±5% 50±10%		N: Normal	F: RoHS Compliant		xx.xxxxxx
						CMOS 50pF	J K					
							F G					

Ordering Example: VTCUPCJ-NF-14.318180 MHz

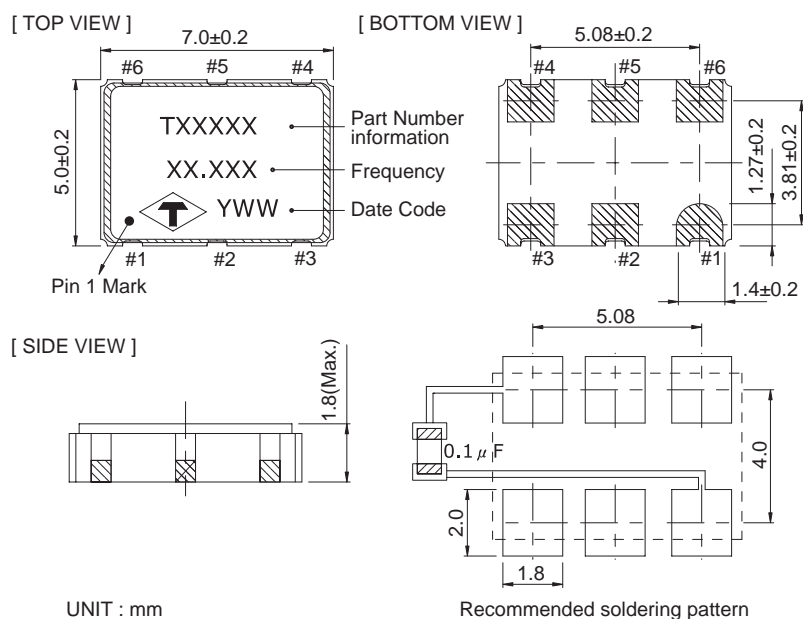
VCXO T-TYPE; V_{DD}: 5V; Fixed-Freq. with Tri-State input to Pin2; Freq. Stability: ±50ppm, Pulling Range: ±100ppm; Temp. Range: -20°C to +70°C; Load: CMOS 15pF, Symmetry: 50±5%; Normal Appearance; RoHS Compliant; Freq. 14.318180MHz.

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	M:±25	P:±50
I	-10~ +60	○	○
C	-20~ +70	○	○
L	-40~ +85	△	○

○ : Standard △ : Available (case by case)
 × : Not available

OUTLINE DRAWING



Pin	Function
#1	VCON
#2	NC/TRI-STATE
#3	GND
#4	OUTPUT
#5	NC/TRI-STATE
#6	V _{DD}

VCXO

ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	3.3	5.0	3.3	V
Supply Voltage Variation(V _{DD}) 10%	4.5	2.97	5.5	3.63	V
Frequency Range	1.5		80	200	MHz
Operating Temp. Range	Refer to Ordering Information				°C
Frequency Stability *	Refer to Ordering Information				ppm
Pulling Range	±100		—		ppm
Supply Current					
1.5MHz Fo<20MHz	—		15	10	mA
20MHz Fo<50MHz	—		30	20	
50MHz Fo 80MHz	—		35	30	
80MHz<Fo<160MHz	—		—	40	
160MHz Fo 200MHz	—		—	50	
Output Level (CMOS)					
Output High (Logic "1")	V _{DD} -0.4		—		V
Output Low (Logic "0")	—		0.4		
Transition Time:Rise/Fall Time*					
1.5MHz Fo<20MHz	—		8	10	nSec
20MHz Fo<50MHz	—		5	6	
50MHz Fo 80MHz	—		5	5	
80MHz<Fo 200MHz	—		—	5	
Start Time	—		10		mSec
Tri-State (Input to Pin 2 or Pin 5)					
Output Active	4.0	2.0	—		V
Output in High Impedance State	—		0.8	0.5	
Jitter	—		40		pSec
Modulation Bandwidth(BW)					
1.5MHz Fo<50MHz	—		20		KHz
50MHz Fo 80MHz	—		30		
80MHz<Fo 200MHz	—		45		
Input Impedance					
1.5MHz Fo<50MHz	—		50		KΩ
50MHz Fo 80MHz	—		160		
80MHz Fo 200MHz	—		1000		
Storage Temp. Range	-55		125		°C

*Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging, shock, and vibration.

*Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15pF.