

TJ-Type Voltage Controlled Temperature Compensated Crystal Oscillator

RoHS Compliant Optional

FEATURE

1. Frequency vs temperature: $\pm 1.0\text{ppm}$ @ $-40^\circ\text{C} \sim +85^\circ\text{C}$.
2. Pulling: $\pm 30\text{ppm}$ max.
3. Aging: $\pm 1\text{ppm/year}$.
4. TTL/ CMOS output.
5. Packing: Tape & Reel 500 pcs per reel, 1~99 pcs bulk / tape.



ORDERING INFORMATION

T	J	G	A	D	E	J			A	N	L	-	?
TCXO	Package (mm)	Supply Voltage(V) & Pin Form	Pulling range (PPM)	Freq. Stability (PPM)	Temp. Range ($^\circ\text{C}$)	Output Logic and Symmetry			Oscillator Mode	Appearance	Marking	Dash	Freq. (MHz)
	11.4x9.6	G: 5.0 SMD F: 3.3 SMD	A: ± 5 B: ± 8 C: ± 10 D: ± 12 E: ± 15 F: ± 20 G: ± 25 T: TCXO	A: ± 0.5 B: ± 1.0 P: ± 1.5 C: ± 2.0 D: ± 2.5 E: ± 3.0 F: ± 4.0 G: ± 5.0	W: $0 \sim +55$ C: $-10 \sim +60$ E: $-20 \sim +70$ H: $-30 \sim +75$ U: $-40 \sim +85$	10TTL 15pF CMOS 15pF CMOS 50pF	50 \pm 5% A J F	50 \pm 10% B K G	A: AT Fundamental T: AT3 rd Overtone	N: Normal	L: Laser Marking F: Laser Marking (RoHS compliant standard)		xx.xxxxx

Ordering example: TJGADEJANL-10.000000

VCTCXO J-TYPE VCC: 5V, Frequency Stability: $\pm 2.5\text{ppm}$, -20°C to $+70^\circ\text{C}$. Pulling range: $\pm 5\text{ppm}$; CMOS 15pF Duty: $50 \pm 5\%$. AT fundamental, Laser Marking, Freq. 10.0MHz

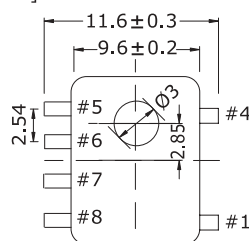
FREQ. STABILITY vs. TEMP.RANGE

Temp. ($^\circ\text{C}$)	PPM	A: ± 0.5	B: ± 1.0	P: ± 1.5	C: ± 2.0	D: ± 2.5
W	$0 \sim +55$	○	○	○	○	○
C	$-10 \sim +60$	△	○	○	○	○
E	$-20 \sim +70$	X	○	○	○	○
U	$-40 \sim +85$	X	○	○	○	○

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

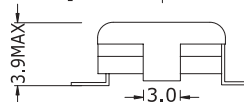
OUTLINE DRAWING

[TOP VIEW]

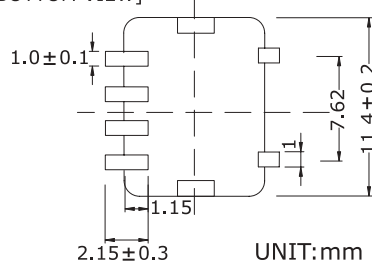


PIN	Function
#1,4,6	GND
#5	OUTPUT
#7	VCON
#8	VCC

[SIDE VIEW]



[BOTTOM VIEW]



UNIT:mm

ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	2.8	5.0	2.8	V
Supply Voltage Variation(VDD) 5%	4.75	2.66	5.25	2.94	V
Frequency Range	1.250		26.000		MHz
Operating Temp. Range	Refer to Ordering Information				°C
Frequency Stability	Refer to Ordering Information				ppm
Frequency Stability					
Vs Supply Voltage(±5%) change	—		±0.2		ppm
Vs Load(±10%) change	—		±0.2		ppm
Vs Aging	—		±1.0		ppm/year
Supply Current					
1.2500MHz ≤ Fo < 10.000MHz	—		10	7	mA
10.000MHz ≤ Fo < 15.000MHz	—		15	10	
15.000MHz ≤ Fo < 26.000MHz	—		20	15	
Output Level (TTL/CMOS)					
High Level("1")	90% Vcc or 2.4V		---		V
Low Level ("0")	---		10% Vcc or 0.4V		V
Duty	40%		60%		
Vc Input impedance	1.0				MΩ
Phase noise @13.0MHz					
100Hz			-115		dbc/Hz
1KHz			-135		
10KHz			-148		
Start Time	—		2		mSec
Storage Temp. Range	-55		125		°C