

Ceramic SMD VCTCXO

Voltage Control Temperature Compensated Crystal Oscillator

5.0mm × 3.2mm Ceramic SMD Package

Ideal for wireless device using CDMA or GSM protocols and GPS receivers

Buyer :

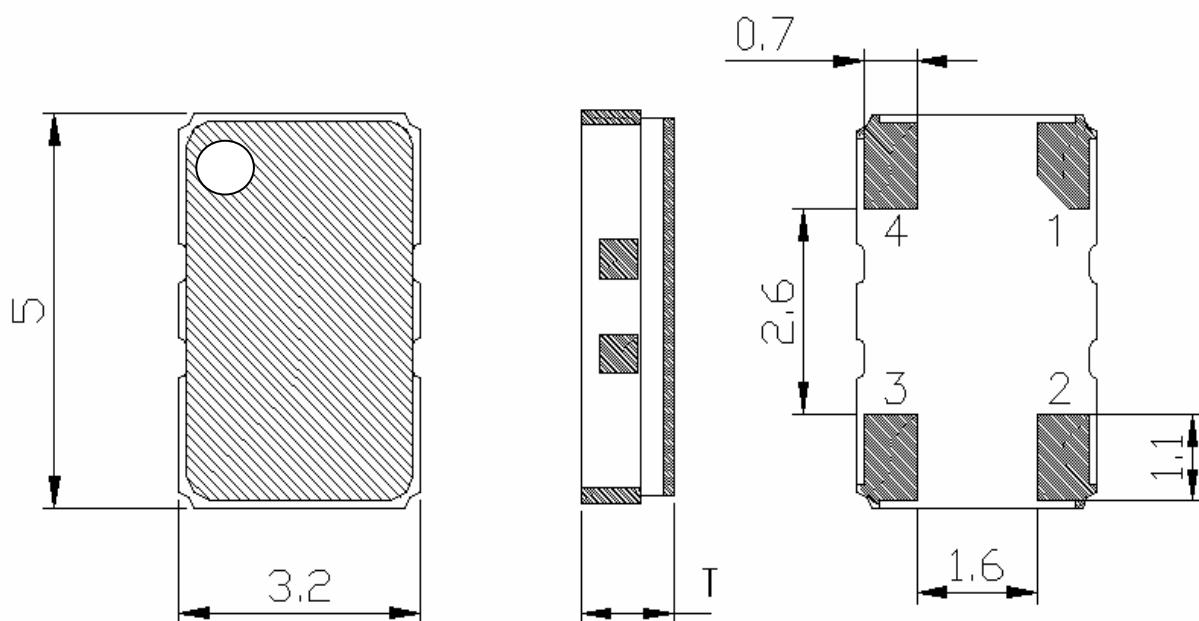
Frequency :12.800MHz 26M.000MHz

1. SPECIFICATION

Description	Contents
Output Wave Form	Clipped Sine wave
Frequency Range	12.800MHz, 13.00MHz, 19.200MHz, 19.680MHz, 26.000MHz
Input Voltage (Vdd)	+2.7 Vdc 5.0 Vdc ±5%
Frequency Tolerance	± 0.5ppm (@25 ±2)
Temperature Stability	± 2.0ppm
Operating Temperature Range	-30 85
Control Voltage Stability	± 4.5ppm ± 7.5ppm, ± 8.0ppm ± 16.0ppm (Option)
Control Voltage Range (Vc)	AFC Center Voltage ± 1V
Current Consumption	1.5mA Max (2.0mA Max)
Phase Noise	-110dBc/Hz Max (100Hz offset)
	-115dBc/Hz Typ (100Hz offset)
Output Voltage Level	1.2V typ
Load Stability	0.2ppm Max (10Kome//10pF ±10%)
Harmonics	-5dBc Max
Start-Up Time	3mS Max
Duty	50% ± 10%
Reflow soldering	± 1.0ppm Max (before and after 24hr, @25 ±2)
Aging(@25)	1.0ppm/y Max
Allan Valiance Stabilituy (1sec)	1.0E-9 Max
	2.0E-10 Typ

Remark

2. DIMENSION



(T : 1.35 Max, Tol : ± 0.15 , unit : mm)

Pin Function

PIN 1 : Voltage Control(VC)	PIN 3 : Output
PIN 2 : Ground	PIN 4 : Supply Voltage (Vdd)

3. MARKING SPECIFICATION

Line 1 : CVT5-AAA

*AAA : Custommer Option

Line 2 : FF.FF YWW

* Frequency in MHz 5 Digit

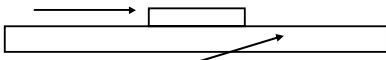
Under 100MHz : FF.FF

Over 100MHz : FFF.F

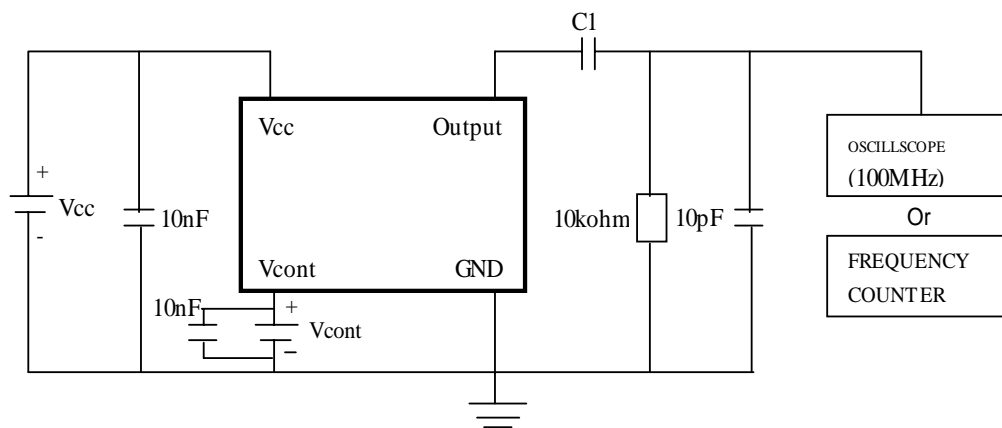
* Y : Year

* W : Weekly

4. RELIABILITY TEST

ITEM	CONDITION PROCEDURE	CRITERIA OF COMPLIANCE
High Temperature Storage	Ta=+85 ±2 , Judge on 96H±2H storage	It must be met to the characteristics judging criterion.
Low Temperature Storage	Ta=-40 ±2 , Judge on 96H±2H storage	
High Temp. and High Humidity Storage	Ta=+60 ±2 , RH=90 95%, Judge on 96H±2H storage	
Temperature Cycling	-40 ±2 +85 ±2 , 30min. Each 10 cycle	
Drop Test1	A piece mounted test jig with 120g is dropped 7times from the height 150cm onto hard board. Each side(6),coner(1)	
Vibration Test	10 55 10Hz, 1.5mm constant amplitude 1min. Period. X,Y,Z direction 2H each 6H total	room ambient within 2 to
Durability	VC-TCX0  Base PCB Size : 40W x 100L x 1.6T(mm) ±0.5mm, Tension 3Time	
Resistance Solder Heat Test	Touch the soldering iron at +350 ±5 onto the TCX0 leads 5times(1time per 1sec)	It must be met to the electrical characteristics. Measurement shall be taken at room ambient within 2 to 24hours after each test.

MEASUREMENT CIRCUIT

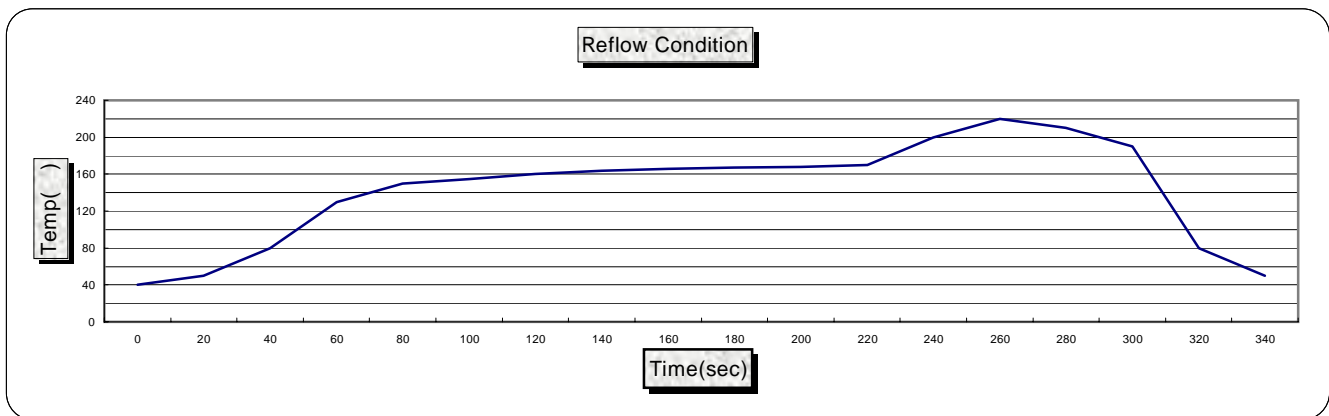


Note

1. Be caution of VC-TCX0 pin connection
2. Load Capacitance includes probe and test jig capacitance
3. Need C1 for DC blocking (Typ :102pF)
4. Vcont 10nF is Option

5. REFLOW CONDITION

* Peak Temperature : 220 ± 5

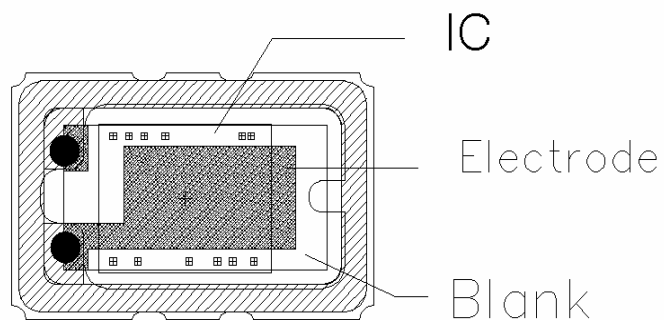


6. CONSTRUCTION

1) Material

No.	Name	Material
1	Lid	Kovar
2	Package	Ceramic
3	Crystal	SiO ₂
4	I.C.	SiO ₂
5	Epoxy	Ag

2) CONSTRUCTION



NOTICE

- Storage Temperature : -40 to +85