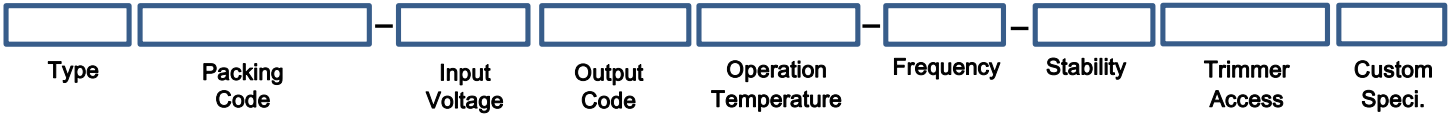


**(V)TX Series:(Voltage-Controlled) Temperature Compensation Crystal 1.000 - 150.000MHz**

● SPECIFICATION

Frequency Range		1.000 - 150.000MHz			
Input Voltage (VDD)		1.8V - 5.0V			
Frequency Stability	Vs. Temperature	±0.5 ~ ±5.0PPM			
	Vs. Supply Voltage	±0.3PPM max / VDD ±5%			
	Vs. Aging	±1.0PPM per year			
	Vs. Load	±0.3PPM			
Operation Temperature		-40°C ~ +85°C (Optional , See below )			
Storage Temperature		-40°C ~ +85°C			
Linearity (VCTCXO only)	Control Voltage Range	1.5V±1.0V			
	Pulling Range	±5.0PPM min. , Positive			
	Input Impedance	500KΩ min.			
Current Consumption		3~25mA max (for <30.0MHz)			
Output Voltage		CMOS : V <sub>OH</sub> = 90% V <sub>DD</sub> min , V <sub>OL</sub> = 10% V <sub>DD</sub> max			
Symmetry		45 ~ 55% at 0.5V <sub>DD</sub>			
Load		15pf			
Phase Noise (for ≤40MHz) (dBc/Hz typ.)		100Hz	1KHz	10KHz	100KHz
		-115	-135	-148	-150

● PART NUMBERING

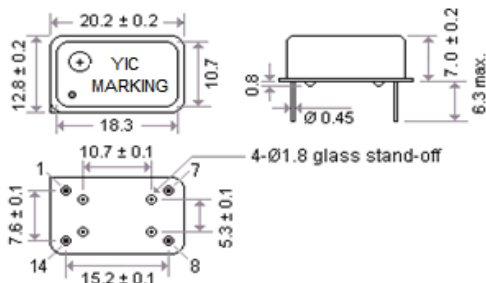


TX:TCXO	SMD Type:	1.8 : 1.8V	C : Clipped	1 : -10~+60°C	In MHz	0.5 : ±0.5PPM	T : With	*	
VTX:VCTCXO	11106C : 11.4x9.6x2.5(H)mm,6P	2.5 : 2.5V	Sine Wave	Blank : -10~+70°C		1 : ±1.0PPM	Trimmer		
	11106T : 11.4x9.6x2.5(H)mm,6P	2.8 : 2.8V		2 : -20~+70°C		1.5 : ±1.5PPM		Blank : Without	
	11104C : 11.4x9.6x2.5(H)mm,4P	3 : 3V	T : CMOS	28 : -20~+85°C		2 : ±2.0PPM		Trimmer	
	11104T : 11.4x9.6x2.5(H)mm,4P	3.3 : 3.3V	Square Wave	3 : -30~+75°C		2.5 : ±2.5PPM			
	754C : 7.0x5.0x2.3(H)mm,4P	5 : 5V		38 : -30~+85°C		3 : ±3.0PPM			
	754T : 7.0x5.0x2.3(H)mm,4P	8 : 8V		1 : -40~+85°C		5 : ±5.0PPM			
	534C : 5.0x3.2x1.2(H)mm,4P	9 : 9V		A : -40~+105°C					
	534T : 5.0x3.2x1.3(H)mm,4P	10 : 10V		B : -40~+125°C					
	324C : 3.2x2.5x1.0(H)mm,4P	12 : 12V		C : -55~+125°C					
	324T : 3.2x2.5x1.0(H)mm,4P	A : 1.8~3.3V		X : Custom					
	224C : 2.5x2.0x0.8(H)mm,4P								
	214C : 2.0x1.6x0.7(H)mm,4P								

Through-Hole Type:  
 2013C : 20.3x12.8x7.0(H)mm  
 2013T : 20.3x12.8x7.0(H)mm  
 1812C : 18.4x11.7x4.7(H)mm  
 1812T : 18.4x11.7x4.7(H)mm  
 1313C : 12.2x12.8x5.5(H)mm  
 1313T : 12.2x12.8x5.5(H)mm

(※ " C " for Clipped Sine Wave)  
 (※ " T " for CMOS)

● DIMENSIONS (UNIT : mm)



Pin Connections :

Pin 1	Control voltage for VCTCXO , No connection for TCXO .
Pin 7	Ground
Pin 8	Output
Pin 14	Input Voltage