Features & Applications

- Temperature Compensated Crystal Oscillator
- Clipped Sine Wave or CMOS Output
- ±0.5pmm Temperature Stability available
- Fundamental Crystal Design
- GPS, Small Cell Base Stations, PCS Base Stations
- WiMAX, Wi-Fi, Wi-LAN
- Wireless Communications, Handsets
- Broadband Access
- Test and Measurement, Cellular Telephony

RoHS COMPLIANT

Part Numbering Guide

TCXO → STC - CS - SS - 33S - 0.5HZ - 10.000MHz ← Frequency [MHz]

OUTPUT
CS : Clipped sine
BLANK : CMOS

5.0mm x 3.2mm

VOLTAGE / DUTY
33 : 3.3V
S : 55/45 Duty
BLANK : 60/40 Duty

FREQ. STABILITY
0.5 : 0.5ppm
1.0 : 1.0ppm
1.5 : 1.5ppm
2.0 : 2.0ppm
2.5 : 2.5ppm
4.6 : 4.6ppm

TEMP. RANGE

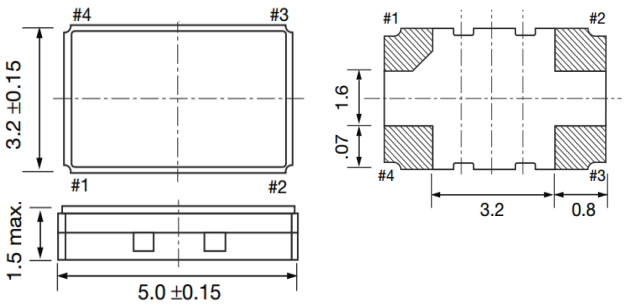
A : -55	H : -20	O : 15	V : 50	3 : 85
B : -50	I : -15	P : 20	W : 55	4 : 90
C : -45	J : -10	Q : 25	X : 60	
D : -40	K : -5	R : 30	Y : 65	
E : -35	L : 0	S : 35	Z : 70	
F : -30	M : 5	T : 40	1 : 75	
G : -25	N : 10	U : 45	2 : 80	

Electrical Characteristics

type		clipped sine wave	cmos	REMARK
frequency range		10.0 ~ 40.0MHz	6.0 ~ 40.0MHz	
supply voltage V_{DD}		3.3V ± 5%	3.3V ± 5%	
operating temperature		STD. -10℃ ~ 70℃ / Option : -40℃ ~ 90℃		
storage temperature		-55℃ ~ 125℃		
frequency stability	Temp.	± 0.5 ppm ~ ± 4.6 pm (overall)		
	Voltage	± 0.3 ppm @ VDD ±5%		
	Load	± 0.3 ppm @ Load ±10%		
	aging	± 1.0 ppm max at +25℃ ±3℃ for first year		
input current	1.0 ~ 20.0MHz	1.5 mA max	10 mA max	
	20.1 ~ 40.0MHz	3.0 mA max	20 mA max	
phase jitter 12kHz ~ 20MHz		< 1.0ps RMS		
output	load	10kΩ // 10pF	15pF max (HCMOS)	
	logic level	Vp-p 0.7V min clipped sine wave (DC-cut)	low 10% VDD max high 90% VDD min	
	symmetry		55/45 @ 50% V_{DD}	
	rise / fall time		10 nS MAX / 10% VDD to 90%	
start up time		10 mS MAX		

All specifications are subject to change without notice

Outline



Pin connection
#1 : N/C
#2 : Ground
#3 : Output
#4 : VDD

Solder PAD Layout