

Features & Applications

- CMOS output Crystal Oscillator
 - Wide Frequency Range
 - SMD Type Ceramic Package
 - Low jitter
 - Tri-State Output Function
- Bluetooth
 - Ethernet
 - Storage Area Networking
 - Digital Video
 - Broadband Access



Part Numbering Guide

CMOS OSCILLATOR → **SXO - 32 - 33ST - 30F3 - 20.000MHz** ← Frequency [MHz]

3.2mm x 2.5mm

VOLTAGE/DUTY

18 : 1.8V S : 55/45 Duty
25 : 2.5V BLANK : 60/40 Duty
33 : 3.3V T : Tri-state
50 : 5.0V BLANK : No Tri-state

FREQ. STABILITY

10 : 10ppm
15 : 15ppm
20 : 20ppm
25 : 25ppm
30 : 30ppm
50 : 50ppm

TEMP. RANGE

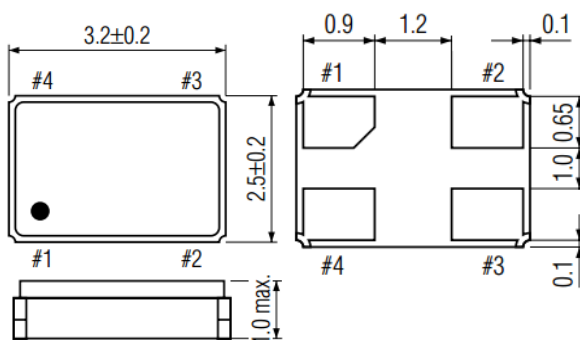
A : -55 H : -20 O : 15 V : 50 3 : 85
B : -50 I : -15 P : 20 W : 55 4 : 90
C : -45 J : -10 Q : 25 X : 60
D : -40 K : -5 R : 30 Y : 65
E : -35 L : 0 S : 35 Z : 70
F : -30 M : 5 T : 40 1 : 75
G : -25 N : 10 U : 45 2 : 80

Electrical Characteristics

type		3.3V	2.5V	1.8V	REMARKS
frequency range		0.75 ~ 95.0MHz	0.75 ~ 95.0MHz	1.0 ~ 80.0MHz	
frequency stability		± 20ppm ~ ± 100ppm (overall)			
supply voltage V _{DD}		3.3V ± 10%	2.5V ± 5%	1.8V ± 5%	
input current (15pF load)	1.0 ~ 20.0MHz	7 mA max	5 mA max	2 mA max	
	20.1 ~ 40.0MHz	13 mA max	9 mA max	3.5 mA max	
	40.1 ~ 60.0MHz	19 mA max	11 mA max	6 mA max	
	60.1 ~ 95.0MHz	24 mA max	14 mA max	8 mA max	
operating temperature		STD. -10°C ~ 70°C / Option : -40°C ~ 90°C			
storage temperature		-55°C ~ 125°C			
aging		±3.0ppm max at +25°C ±3°C for first year			
phase jitter 12kHz ~ 20MHz		< 1.0ps RMS			
output	load	15pF max (HCMOS)			
	logic level	low 10% V _{CC} max / high 90% V _{CC} min			
	symmetry	55/45 @ 50% V _{DD}			
	rise / fall time	10 nS MAX / 10% V _{DD} to 90% level			
start up time		10 mS MAX			
Tristate		enable : 0.7 V _{DD} (min) / disable : 0.3 V _{DD} (max)			

All specifications are subject to change without notice

Outline



Pin connection

- #1 : N/C or E/D
- #2 : Ground
- #3 : Output
- #4 : VDD

Solder PAD Layout

