SUNTSU

Metal Full Size Dip Stratum 3 CMOS (VC)TCXO

SSTFSC Series

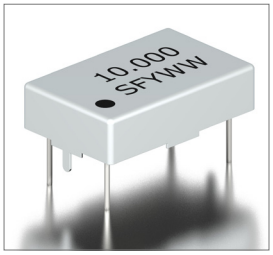
18.3mm x 11.7mm

Features

- Stratum 3 (Overall ±4.6ppm)
- CMOS
- (VC)TCXO

Applications

- Base Stations
- Stratum 3



Part Numbering Guide

SST FS C 33 R 48 V E - 10.000M

- **SUNTSU STRATUM 3 TCXO**
- **FULL SIZE**
- **CMOS**
- **SUPPLY VOLTAGE**
  - 33 : 3.3V±5%
  - 50 : 5.0V±5%
- **FREQUENCY STABILITY**
  - R : ±1.0ppm
- **OPERATING TEMPERATURE RANGE**
  - 27 : -20°C - +70°C
  - 48 : -40°C - +85°C
- **TCXO/VCTCXO**
  - BLANK : TCXO
  - V : VCTCXO
- **PULLABILITY**
  - BLANK : TCXO
  - E : ±12.0ppm
  - F : ±8.0ppm
  - G : ±5.0ppm
- **FREQUENCY**
  - MHz

RoHS COMPLIANT

Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	2		40	
Frequency Tolerance at +25°C	ppm	-0.3		+0.3	
Freq. Stability vs. Op Temp.	ppm	-1.0		+1.0	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppm	-0.1		0.1	V_{DD} ±5% Change
Freq. Stability vs. Load	ppm	-0.1		0.1	±5% Change
Freq. Stability vs. Aging/Year	ppm	-1.0		1.0	1 year, ±2.6ppm for 10years
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Storage Temperature	°C	-55		+125	
Supply Voltage (V_{DD}) - 3.3V Option	V	3.135	3.3	3.465	
Supply Voltage (V_{DD}) - 5.0V Option	V	4.750	5.0	5.250	
Current (I_{DD})	mA			20	
Current (VC, VCTCXO) - 3.3V Option	V	0.3		3.0	
Current (VC, VCTCXO) - 5.0V Option	V	0.5		4.5	
Pullability (VCTCXO)	PPM	±5.0		±12.0	See part numbering guide for options.
Linearity (VCTCXO)	%			20	
Output Load (CMOS)	pF			15	
Output Level High (V_{OH})	V	0.9*V_{DD}			
Output Level Low (V_{OL})	V			0.1*V_{DD}	
Rise (T_R) And Fall (T_F) Time	ns			10	
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			3	
Frequency Adjustment	ppm	3			
Phase Noise (Typical) 10Hz Offset	dBc/Hz		-80		
Phase Noise (Typical) 100Hz Offset	dBc/Hz		-120		
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-135		
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-140		
Phase Noise (Typical) 100KHz Offset	dBc/Hz		-145		

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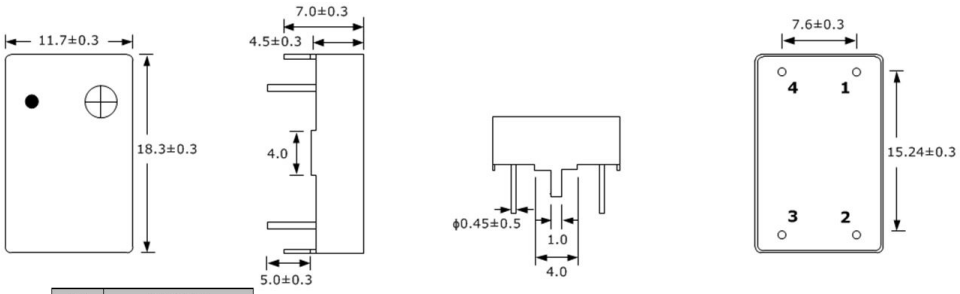
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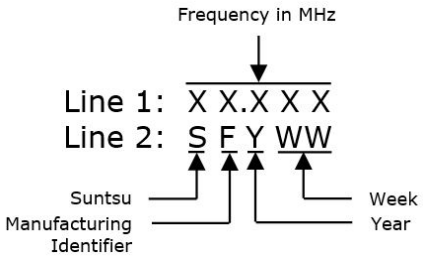
18.3mm x 11.7mm

Outline Drawing & Part Marking

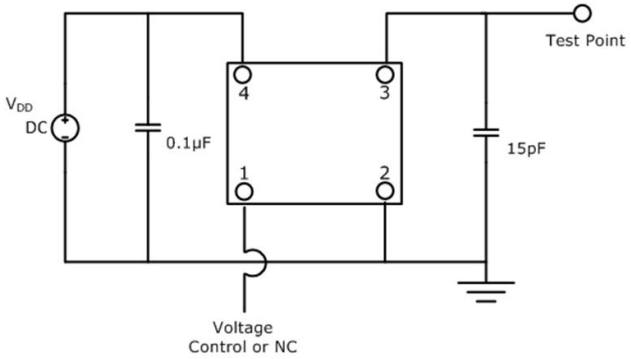
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



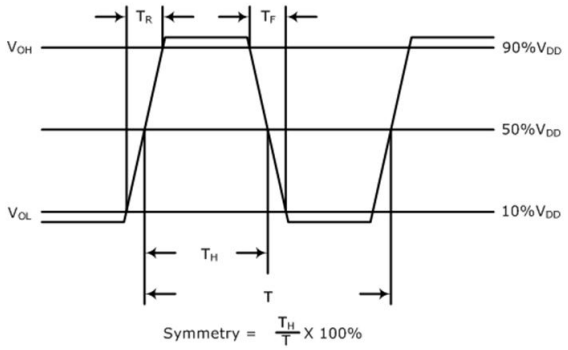
PIN	FUNCTION
1	V_C(VCTCXO) or NC (TCXO)
2	GND
3	OUTPUT
4	V_{DD}



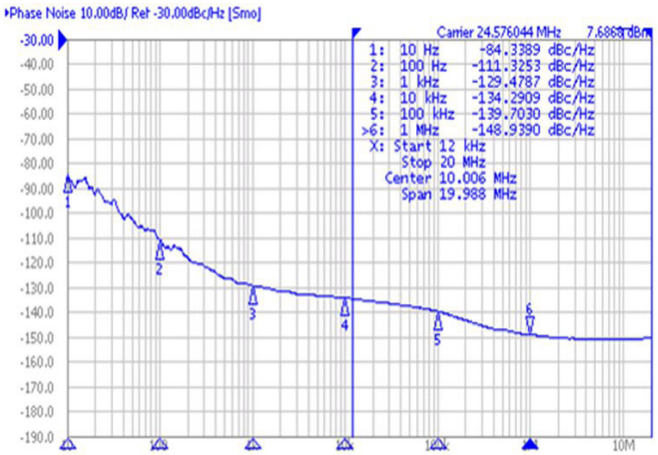
Test Circuit (CMOS)



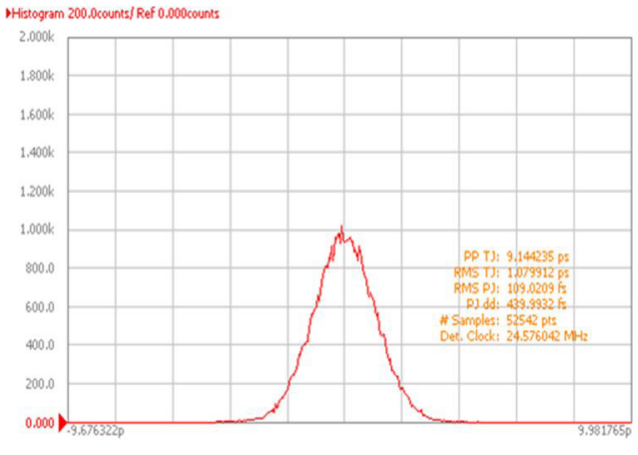
Waveform (CMOS)



Typical Phase Noise And Jitter Performance (Measured By Agilent E5052A)



Frequency - 24.576MHz



Frequency - 24.576MHz

www.suntsu.com

Specifications are subject to change without notice.

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Environmental Specifications		Mechanical Specifications	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	MIL-STD-202, Method 213, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A	Vibration	MIL-STD-883, Method 2007, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C	Moisture Resistance	MIL-STD-883, Method 1004
Solderability	MIL-STD-883, Method 2003	Resistance to Solvents	MIL-STD-202, Method 215
Moisture Sensitivity	J-STD-020, MSL 1	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K

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