SUNTSU

Metal DIP CMOS OCXO

SOC50S Series

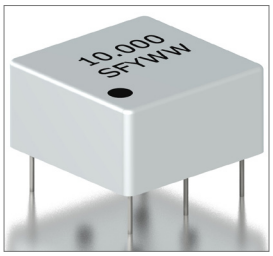
50.0mm x 50.0mm

Features

- ±5.0ppb (Frequency Stability) Available
- Sinewave
- OCXO
- AT-Cut or SC-Cut

Applications

- Military Communication Equipment
- Base Stations
- Test Equipment
- Synthesizers
- Digital Switching



Part Numbering Guide

SOC 50 S 12 K 47 A - 10.000M

- **SUNTSU OCXO**
- **50.0mm x 50.0mm**
- **SINEWAVE**
- **SUPPLY VOLTAGE**
  - 05 : 5.0V±5%
  - 09 : 9.0V±5%
  - 12 : 12.0V±5%
- **FREQUENCY STABILITY**
  - F : ±500ppb
  - I : ±200ppb
  - J : ±100ppb
  - K : ±50ppb
  - L : ±20ppb
  - M : ±10ppb
  - N : ±7.5ppb
  - O : ±5.0ppb
- **OPERATING TEMPERATURE RANGE**
  - 05 : 0°C - +50°C
  - 15 : -10°C - +55°C
  - 2 : -20°C - +60°C
  - 37 : -30°C - +70°C
  - 47 : -40°C - +70°C
- **Type Of Crystal**
  - A : AT-Cut
  - B : SC-Cut
- **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	5		100	
Frequency Tolerance at +25°C	ppb	-100		+100	
Freq. Stability vs. Op Temp.	ppb	-10		+10	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppb	-5		+5	V_{DD} ±5% Change
Freq. Stability vs. Load	ppb	-5		+5	±10% Change
Freq. Stability vs. Aging/Year	ppb	±50		±300	AT-Cut : ±300/Year, SC-Cut : ±50/Year
Operating Temperature	°C	-40		+70	See part numbering guide for options.
Storage Temperature	°C	-45		+85	
Supply Voltage (V_{DD})	V	V_{DD}-5%	V_{DD}	V_{DD} +5%	See part numbering guide for options.
Power Consumption At Turn On	W			6.0	
Power Consumption At 25°C	W			2.0	
Control Voltage (V_C)	V	0.0		5.0	
Control Middle Voltage	V		2.5		
Pullability (AT-Cut)	ppm	±2.0			AT-Cut
Pullability (SC-Cut)	ppm	±0.5			SC-Cut
Linearity	%			10	
V_C Input Impedance	KΩ	50			
Deviation Slope			Positive		
Output Logic (Sinewave) Load	Ω			50	
Output Logic Waveform	dBm	7			
Output Logic Spurious (Harmonic)	dBc			-30	
Output Logic Spurious (Non-Harmonic)	dBc			-70	
Reference Voltage Output (V_{ref})	V			5	
Symmetry (Duty Cycle)	%	45	50	55	
Start-UP Time	ms			3	
Warm-Up Time	ppb	-50		50	At 25°C After 5Mins.

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Specifications are subject to change without notice.

Suntsu Electronics, Inc.
142 TECHNOLOGY DR., SUITE 150
IRVINE, CA 92618

Call: +1-949-783-7300 | Fax: +1-949-783-7301

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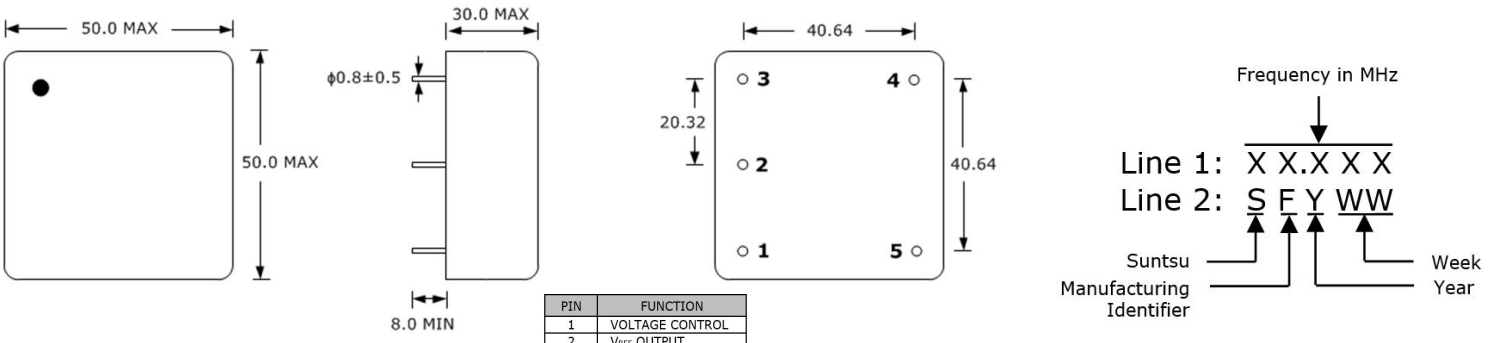
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50.0mm x 50.0mm

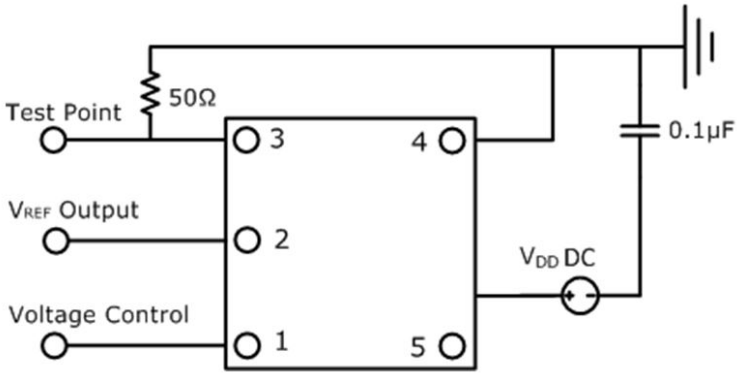
Outline Drawing & Part Marking

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

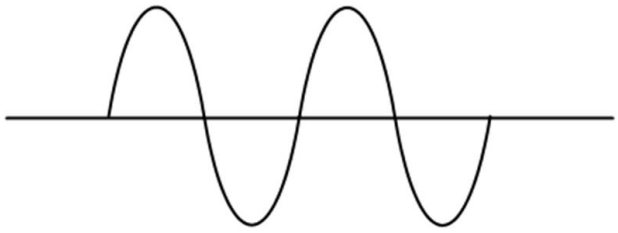


PIN	FUNCTION
1	VOLTAGE CONTROL
2	V_{REF} OUTPUT
3	OUTPUT
4	GROUND
5	V_{DD}

Test Circuit (Sinewave)

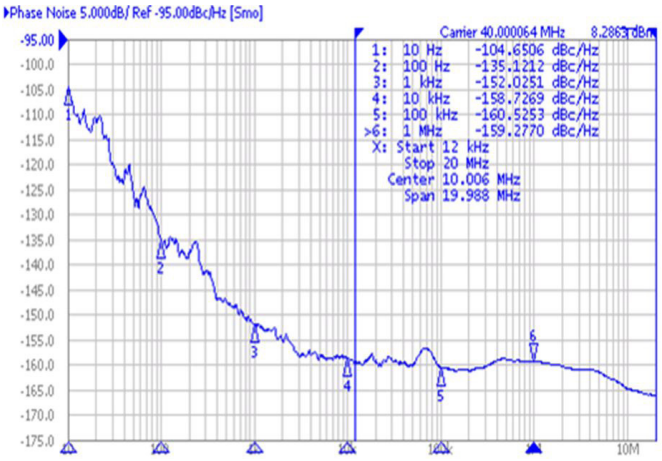


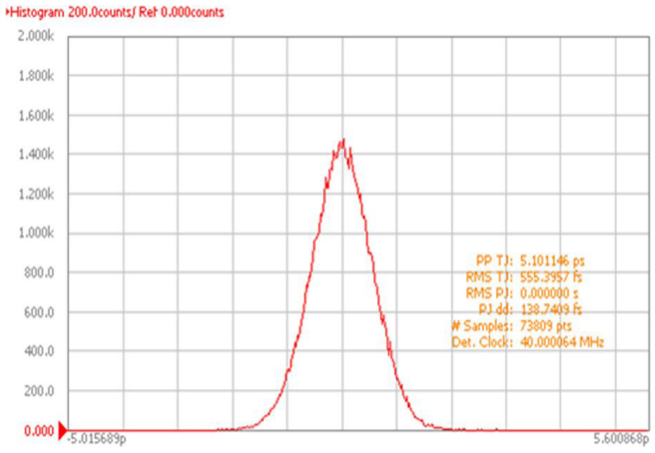
Waveform (Sinewave)



Sinewave Output, +7dBm mim. Into 50Ω

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





Frequency - 40.000MHz

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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
Lead Integrity	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	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition A
Solderability	MIL-STD-883, Method 2003	Resistance to Solvents	MIL-STD-202, Method 215

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