SUNTSU

Metal DIP CMOS OCXO

SOC20C Series

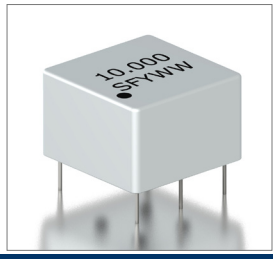
20.0mm x 20.0mm

Features

- ±10ppb (Frequency Stability) Available
- HCMOS
- OCXO

Applications

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



Part Numbering Guide

SOC 20 C 05 K 27 A - 10.000M

- **SUNTSU OCXO**
- **20.0mm x 20.0mm**
- **HCMOS**
- **SUPPLY VOLTAGE**
  - 03 : 3.3V±5%
  - 05 : 5.0V±5%
  - 09 : 9.0V±5%
  - 12 : 12.0V±5%
- **FREQUENCY STABILITY**
  - F : ±500ppb
  - I : ±200ppb
  - J : ±100ppb
  - K : ±50ppb
  - L : ±20ppb
- **OPERATING TEMPERATURE RANGE**
  - 05 : 0°C - +50°C
  - 15 : -10°C - +55°C
  - 27 : -20°C - +70°C
  - 37 : -30°C - +70°C
- **AGING**
  - A : ±300ppb/Year
  - B : ±100ppb/Year
- **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	1		80	
Frequency Tolerance at +25°C	ppb	-100		+100	
Freq. Stability vs. Op Temp.	ppb	-50		+50	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppb	-10		+10	V_{DD} ±5% Change
Freq. Stability vs. Load	ppb	-10		+10	±10% Change
Freq. Stability vs. Aging/Year	ppb	-300		+300	See part numbering guide for options.
Operating Temperature	°C	-20		+60	See part numbering guide for options.
Storage Temperature	°C	-45		+85	
Supply Voltage (V_{DD}) - 3.3V Option	V	3.315	3.3	3.465	
Supply Voltage (V_{DD}) - 5.0V Option	V	4.750	5.0	5.250	
Supply Voltage (V_{DD}) - 9.0V Option	V	8.550	9.0	9.450	
Supply Voltage (V_{DD}) - 12.0V Option	V	11.40	12.0	12.60	
Power Consumption At Turn On	W			2.5	
Power Consumption At 25°C	W			1.0	
Control Voltage (V_C)	V	0.5	2.5	4.5	
Pullability (AT-Cut)	ppm	±3.0	±5.0	±8.0	AT-Cut
Pullability (SC-Cut)	ppm	±0.5		±2.0	SC-Cut
Linearity	%			10	
V_C Input Impedance	KΩ	50			
Deviation Slope			Positive		
Output Logic (HCMOS)	pF			15	
Output Logic Level - High (V_{OH})	V	0.9*V_{DD}			
Output Logic Level - Low (V_{OL})	V			0.1*V_{DD}	
Rise Time (T_R) And Fall Time (T_F)	ns			5	
Symmetry (Duty Cycle)	%	45	50	55	
Start-Up Time	ms			3	
Warm-Up Time	ppb	-100		100	At 25°C After 5Mins.

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Specifications are subject to change without notice.

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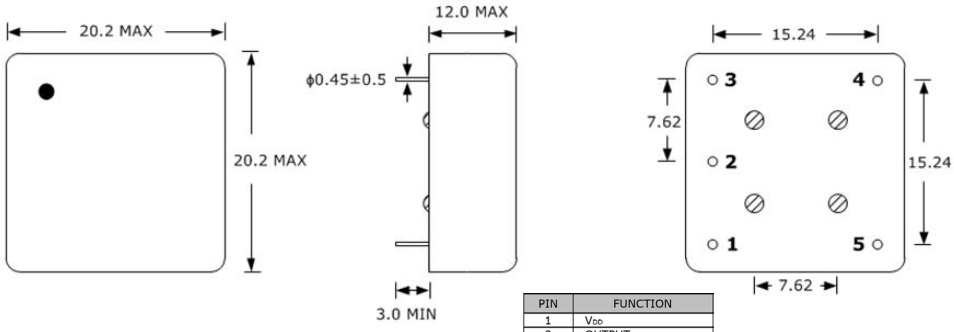
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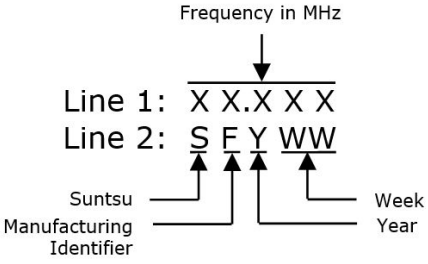
20.0mm x 20.0mm

Outline Drawing & Part Marking

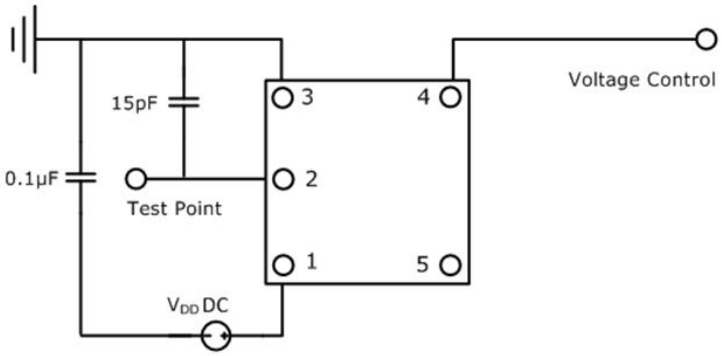
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



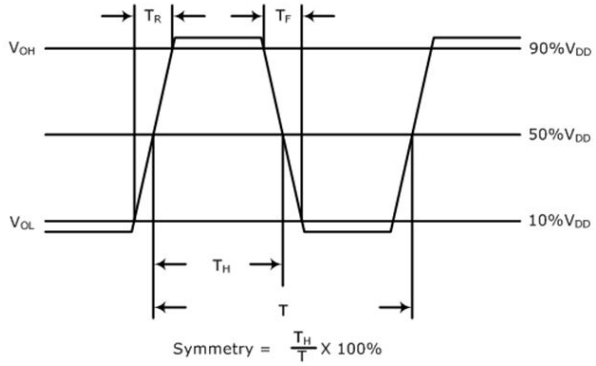
PIN	FUNCTION
1	V_{DD}
2	OUTPUT
3	GND
4	VOLTAGE CONTROL
5	NO CONNECT



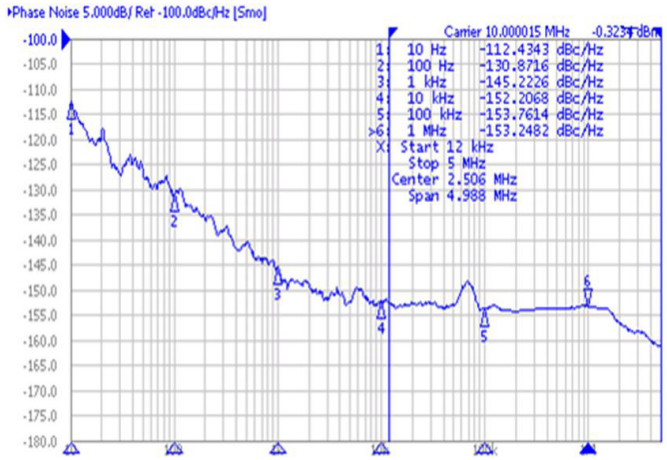
Test Circuit (HCMOS)

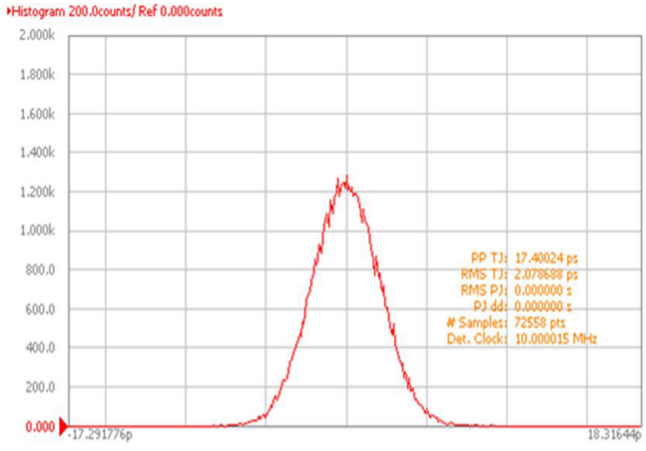


Waveform (HCMOS)



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





Frequency - 10.000MHz

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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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