

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> - ±10ppb (Frequency Stability) Available - HCMOS - OCXO - RoHS Compliant 	<ul style="list-style-type: none"> - Military Communication equipment - Base Stations - Test Equipment - Synthesizers - Digital Switching



PART NUMBERING GUIDE

SUNTSU OCXO → **SOC 20 C 05 K 27 A - 10.000M** ← **FREQUENCY (MHz)**

20mm x 20mm
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: ±10ppb

AGING
 A: ±300ppb/year
 B: ±100ppb/year
OPERATING TEMPERATURE RANGE
 05: 0°C to + 50°C
 15: -10°C to + 55°C
 27: -20°C to + 70°C
 37: -30°C to + 70°C

Cage Code: 4GUT4
To customize your parameters contact a Suntsu representative.

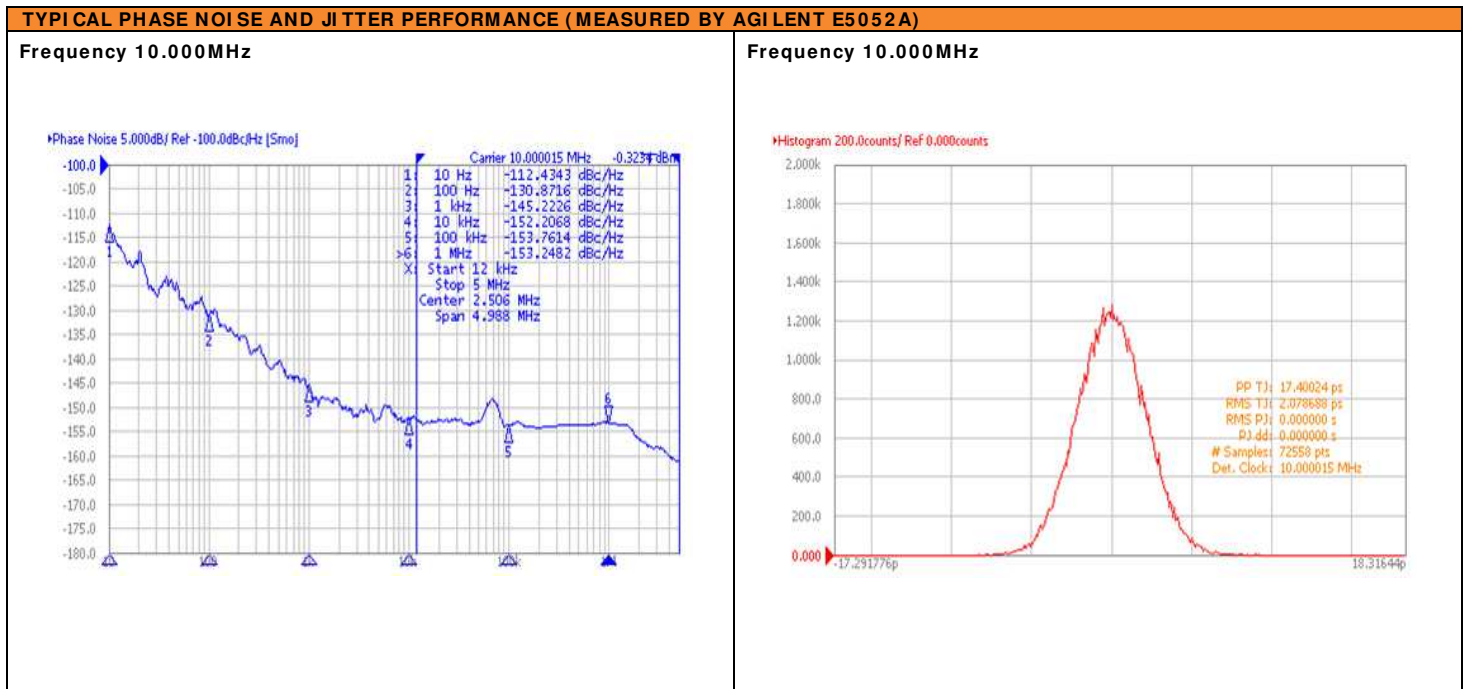
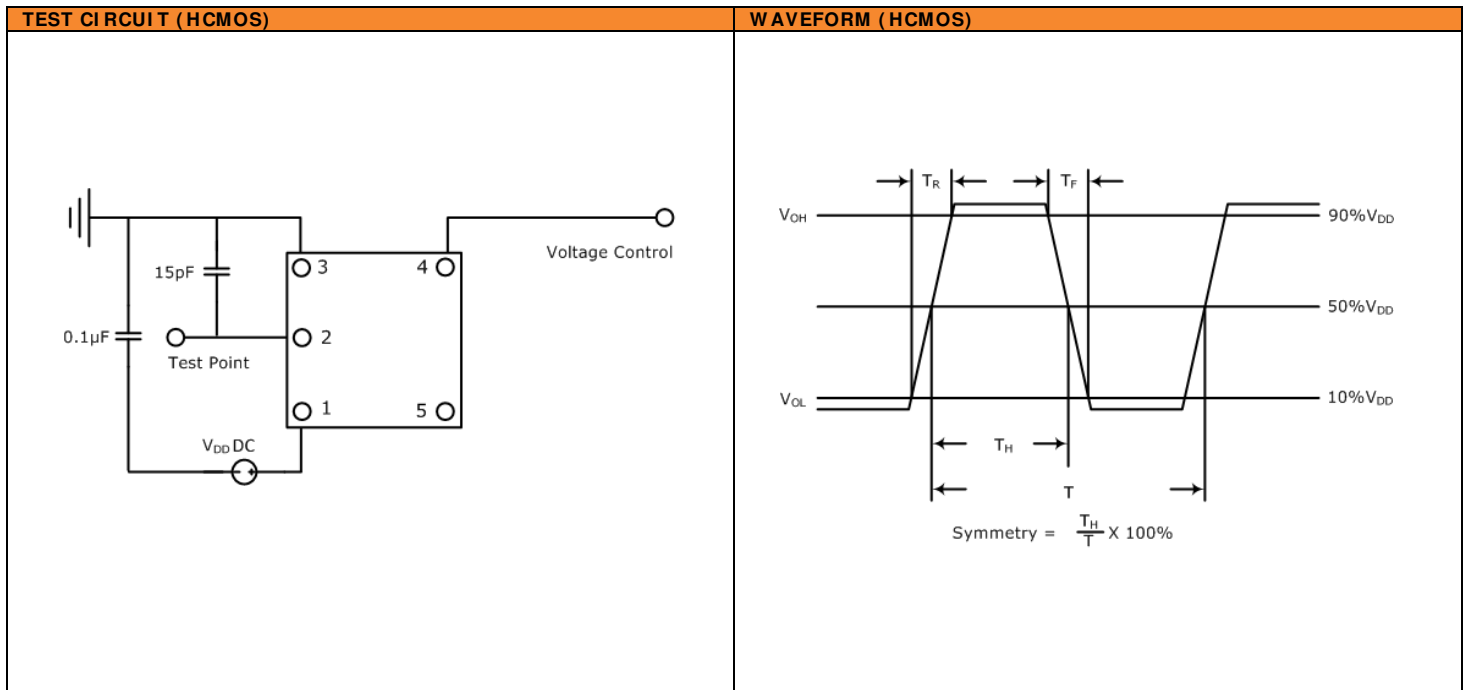
ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range		MHz	1		80	
Frequency Tolerance at +25°C			-100		100	
Frequency Stability vs. Operating Temperature (Ref. 25°C)		ppb	-50		50	See part numbering guide for options.
vs. Supply Voltage			-10		10	V _{DD} ±5% change.
vs. Load			-10		10	±10% change.
vs. Aging			-100		100	For a year.
Operating Temperature		°C	-20		+60	See part numbering guide for options.
Storage Temperature			-45		+85	
Supply Voltage (V _{DD})	3.3V Option	V	3.315	3.3	3.465	
	5.0V Option		4.750	5.0	5.250	
	9.0V Option		8.550	9.0	9.450	
	12.0V Option		11.40	12.0	12.60	
Power Consumption at Turn On		W			2.5	
Power Consumption at 25°C (Steady State)					1.0	
Control Voltage (V _C)		V	0.5	2.5	4.5	
Pullability		ppm	±3.0	±5.0	±8.0	AT-Cut.
		ppm	±0.5		±2.0	SC-Cut.
Linearity		%			10	
V _C Input Impedance		kΩ	50			
Deviation Slope				Positive		
Output Load (HCMOS)		pF			15	
Output Logic Levels	Output Logic High (V _{OH})	V	0.9*V _{DD}			
	Output Logic Low (V _{OL})				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 5 min.

OUTLINE DRAWING

Top View: 20.2 MAX (width), 20.2 MAX (height)
 Side View: 12.0 MAX (height), 3.0 MIN (width), Ø0.45±0.5 (pin diameter)
 Pin View: 15.24 (width), 15.24 (height), 7.62 (pin pitch), 7.62 (pin offset)

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

NOTE: Dimensions in millimeters (mm).



ENVIRONMENTAL & MECHANICAL SPECIFICATIONS	MARKING
Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Lead Integrity	MIL-STD-883, Method 2004
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003

Frequency in MHz

Line 1: $\overline{X X . X X X}$

Line 2: $\overline{S F Y W W}$

Suntsu Manufacturing Identifier Week Year