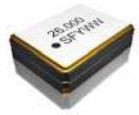
STC22K SERIES

2.5mm x 2.0mm CERAMIC SMT (VC)TCXO

FEATURES	APPLICATIONS
- ±0.5ppm (Frequency Stability) Available - Clipped Sinewave - (VC)TCXO - RoHS Compliant - Tape and Reel	- GPS - Mobile Communication Equipment - Cellular and Cordless Phones - IP Networking



PART NUMBERING GUIDE

STC 22 K 30 R 48 V E – 26.000M

SUNTSU TCXO

2.5mm x 2.0mm

CLIPPED SINEWAVE

SUPPLY VOLTAGE
18: 1.8V±5%
25: 2.5V±5%
27: 2.7V±5%
28: 2.8V±5%
30: 3.0V±5%
33: 3.3V±5%

FREQUENCY STABILITY
N: ±5.0ppm
O: ±2.5ppm
P: ±2.0ppm
Q: ±1.5ppm
R: ±1.0ppm
F: ±0.5ppm

OPERATING TEMPERATURE RANGE
07: 0°C to + 70°C
16: -10°C to + 60°C
17: -10°C to + 70°C
27: -20°C to + 70°C
37: -30°C to + 75°C
38: -30°C to + 85°C
48: -40°C to + 85°C

TCXO/VCTCXO
BLANK: TCXO
V: VCTCXO

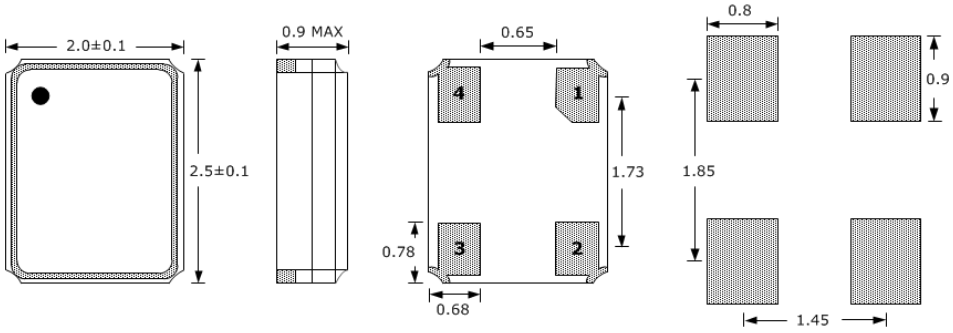
PULLABILITY
BLANK: TCXO
E: ±12.0ppm
F: ±8.0ppm
G: ±5.0ppm

FREQUENCY (MHz)

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

ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range		MHz	13		52	
Frequency Tolerance at +25°C		ppm	-2.0		+2.0	1 hour after reflow.
Frequency Stability vs. Operating Temperature (Ref. 25°C)			-1.0		1.0	See part numbering guide for options.
vs. Supply Voltage			-0.2		0.2	V_{DD}±5% change.
vs. Load			-0.2		0.2	±10% change.
vs. Aging			-1.0		1.0	1 year.
Operating Temperature		°C	-40		+85	See part numbering guide for options.
Storage Temperature			-55		+125	
Supply Voltage (V_{DD})		V	2.985	3.0	3.015	See part numbering guide for options.
Current (I_{DD})		mA			2	
Control Voltage (V_C, VCTCXO)		V	0		VDD	Center Voltage: VDD*50%.
Pullability (VCTCXO)		ppm	±5.0		±12.0	See part numbering guide for options.
Linearity (VCTCXO)		%			10	
Output Load (Clipped Sinewave)		kΩ//pF			10//10	
Output Logic Levels		V_{P-P}	0.8			
Symmetry (Duty Cycle)		%	40	50	60	
Start-Up Time		ms			2	
VC Input Impedance (VCTCXO)		kΩ	100			
Phase Noise (Typical)	10Hz Offset	dBc/Hz		-85		
	100Hz Offset			-115		
	1kHz Offset			-135		
	10kHz Offset			-145		
	100kHz Offset			-150		

OUTLINE DRAWING



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

NOTE: Dimensions in millimeters (mm).

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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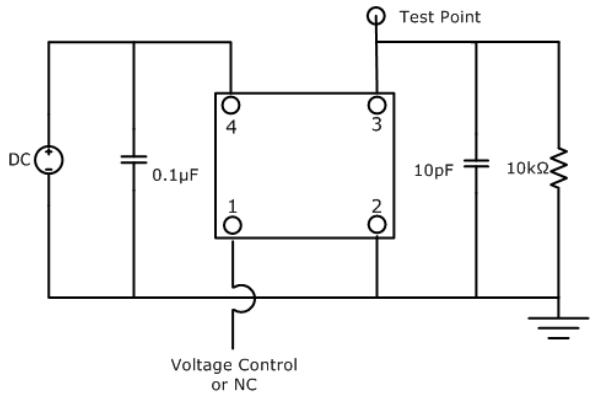
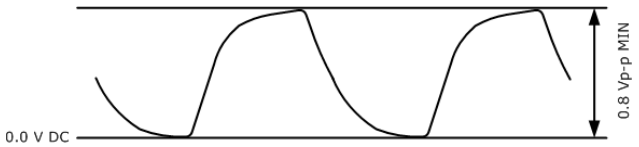
TEST CIRCUIT (CLIPPED SINEWAVE)

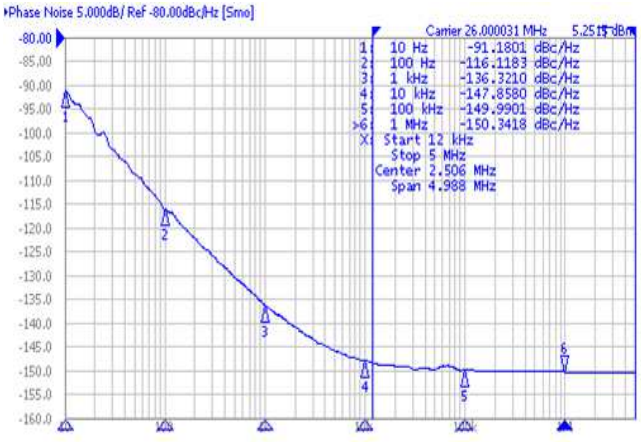


WAVEFORM (CLIPPED SINEWAVE)

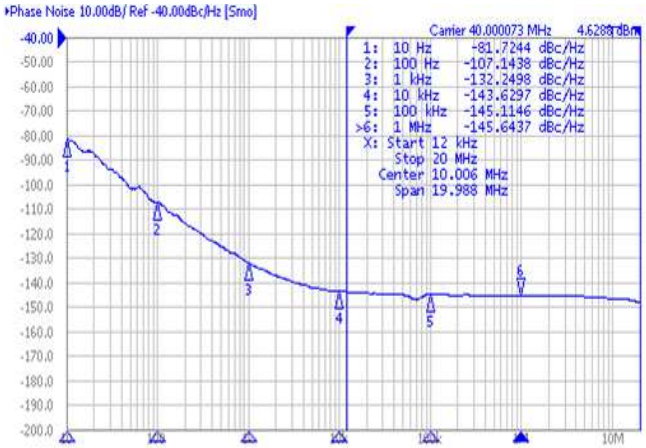


TYPICAL PHASE NOISE PERFORMANCE (MEASURED BY AGILENT E5052A)

Frequency 26.000MHz

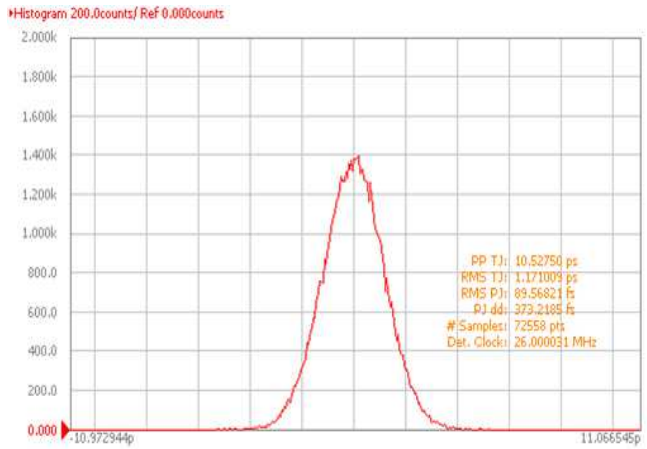


Frequency 40.000MHz

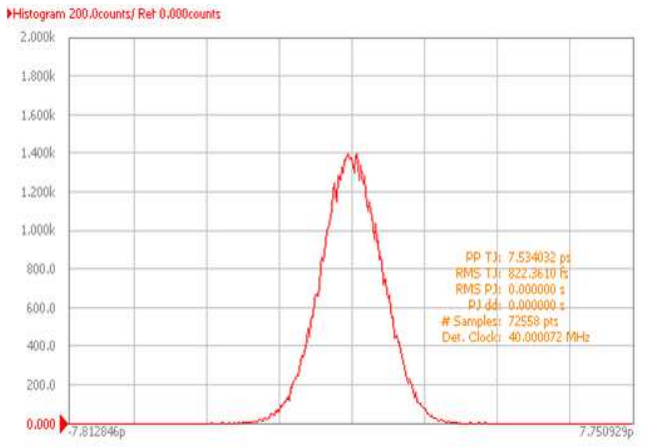


TYPICAL JITTER PERFORMACE (MEASURED BY AGILENT E5052A)

Frequency 26.000MHz

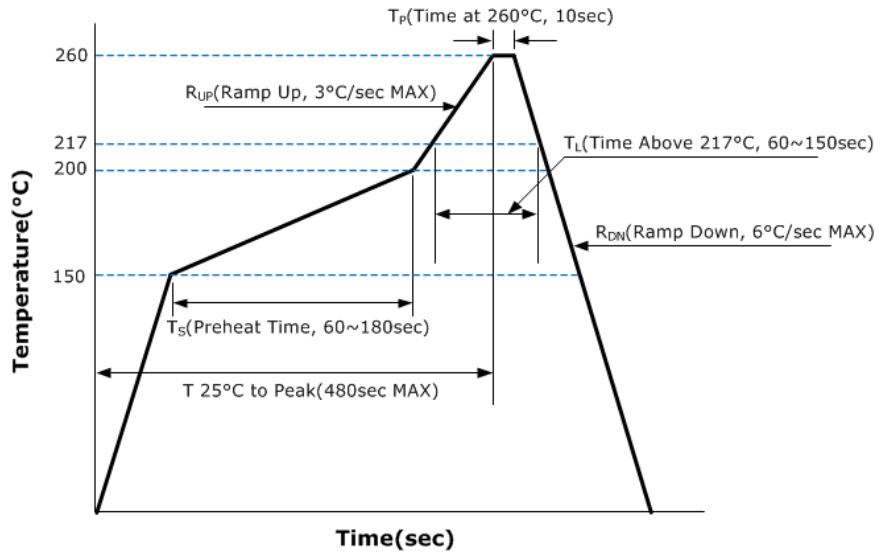


Frequency 40.000MHz

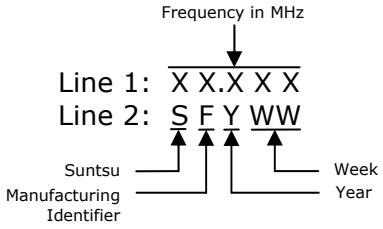


ENVIRONMENTAL & MECHANICAL SPECIFICATIONS	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003

REFLOW PROFILE

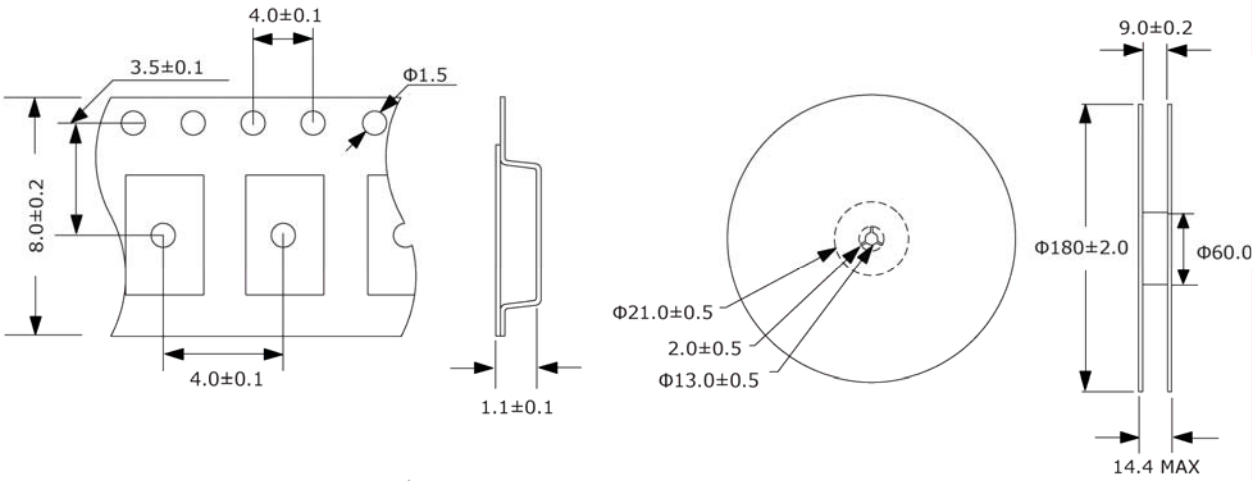


MARKING



TAPE AND REEL DIMENSIONS

3,000pcs/reel



NOTE: Dimensions in millimeters (mm); drawing is not to scale.