

FEATURES	APPLICATIONS
±20ppm (Frequency Stability) Available - Miniature Package - CMOS - RoHS Compliant - Fundamental - Tape and Reel	- Digital TV - DVD, STB - PCMCIA, XDSL - Broadband Access - Base Stations



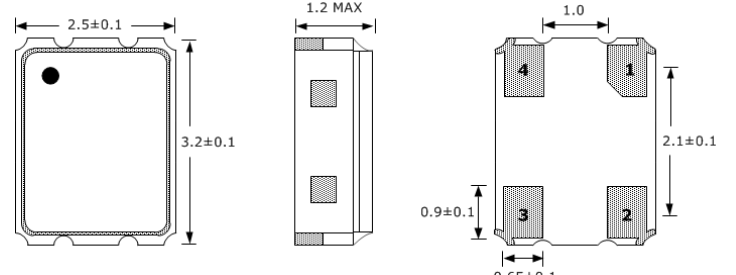
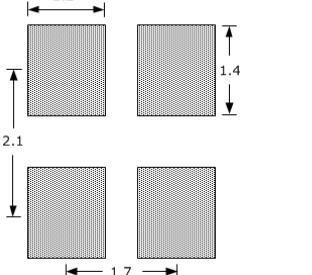
PART NUMBERING GUIDE	
SUNTsu VCXO → SVC 32 C 3 A 48 A - 27.000M ← FREQUENCY (MHz) 3.2mm x 2.5mm CMOS SUPPLY VOLTAGE 1: 1.8V±5% 2: 2.5V±5% 3: 3.3V±5% FREQUENCY STABILITY A: ±50ppm B: ±30ppm C: ±25ppm *D: ±20ppm	PULLABILITY A: ±150ppm B: ±100ppm C: ±50ppm OPERATING TEMPERATURE RANGE 07: 0°C to + 70°C 16: -10°C to + 60°C 17: -10°C to + 70°C 27: -20°C to + 70°C 38: -30°C to + 85°C 48: -40°C to + 85°C

Cage Code: 4GUT4

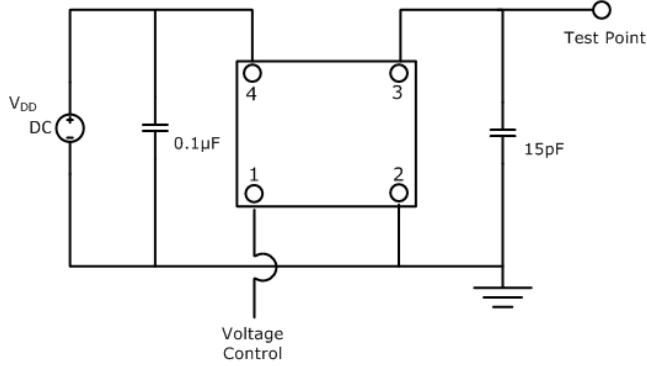
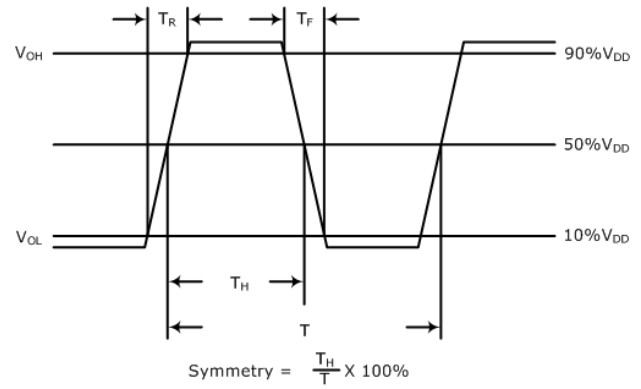
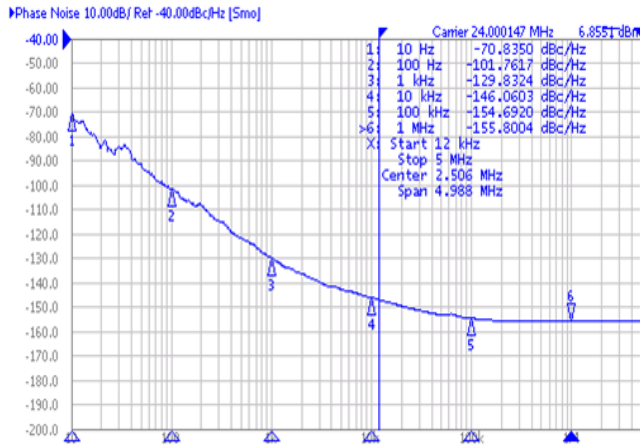
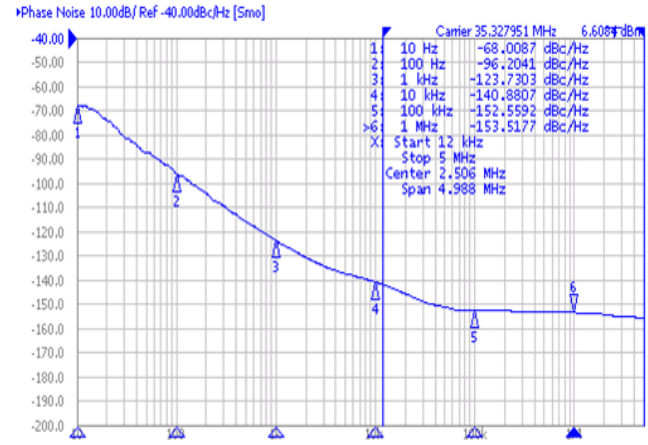
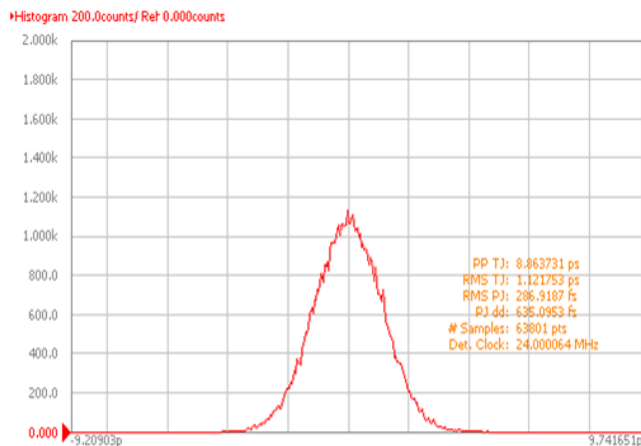
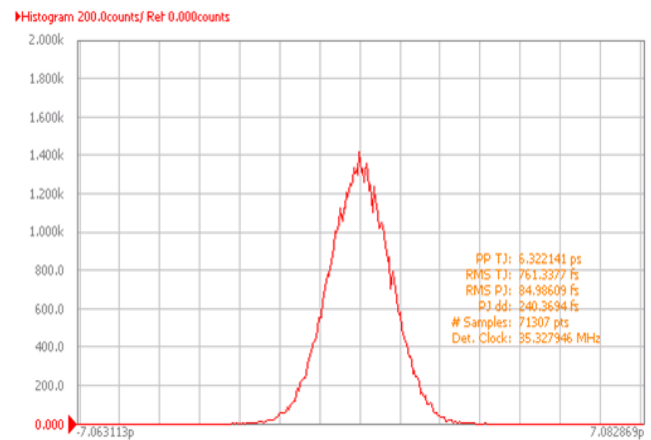
To customize your parameters contact a Suntzu representative.

* For frequency stability option D contact a Suntzu representative.

ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range		MHz	1		55	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Operating Temperature, Output Load Change, Supply Voltage Change, and First Year Aging at 25°C.)		ppm	-20		+20	See part numbering guide for options.
Operating Temperature		°C	-40		+85	See part numbering guide for options.
Storage Temperature			-55		+125	
Supply Voltage (V _{DD})	1.8V Option	V	1.710	1.8	1.890	
	2.5V Option		2.375	2.5	2.625	
	3.3V Option		3.135	3.3	3.465	
Current (I _{DD})	1.8V Option	mA			10	
	2.5V Option				15	
	3.3V Option				25	
Control Voltage (V _C)	1.8V Option	V	0.15		1.65	
	2.5V Option		0.2		2.3	
	3.3V Option		0.3		3.0	
Pullability		ppm	±50	±100	±150	See part numbering guide for options.
Linearity		%			10	
Output Load (CMOS)		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 (T _R) and Fall (T _F) Time		ns			5	
Symmetry (Duty Cycle)		%	45	50	55	
Start-Up Time		ms			10	
Phase Jitter (12kHz ~ 20MHz)		ps			1	

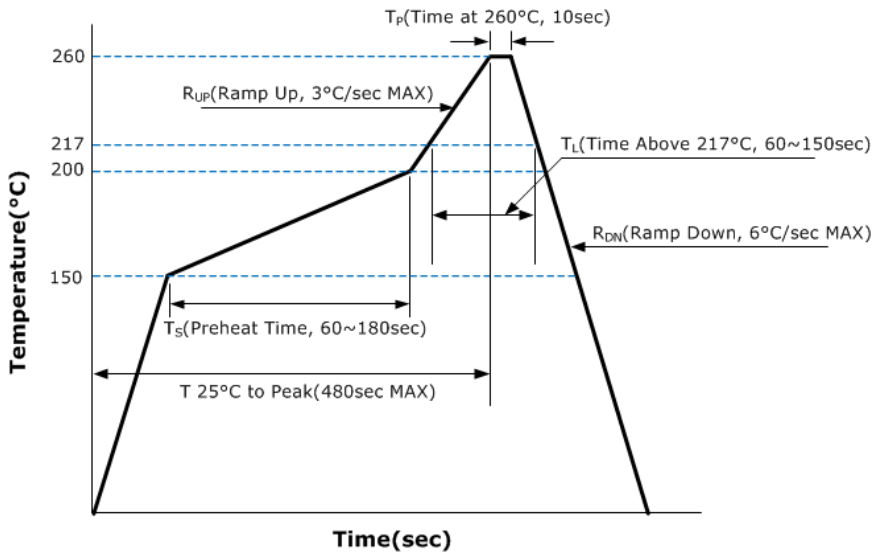
OUTLINE DRAWING											
	RECOMMENDED LAND PATTERN  <table border="1"> <thead> <tr> <th>PIN</th><th>FUNCTION</th></tr> </thead> <tbody> <tr> <td>1</td><td>VOLTAGE CONTROL</td></tr> <tr> <td>2</td><td>GND</td></tr> <tr> <td>3</td><td>OUTPUT</td></tr> <tr> <td>4</td><td>V_{DD}</td></tr> </tbody> </table>	PIN	FUNCTION	1	VOLTAGE CONTROL	2	GND	3	OUTPUT	4	V _{DD}
PIN	FUNCTION										
1	VOLTAGE CONTROL										
2	GND										
3	OUTPUT										
4	V _{DD}										

NOTE: Dimensions in millimeters (mm).

TEST CIRCUIT (CMOS)

WAVEFORM (CMOS)

TYPICAL PHASE NOISE PERFORMANCE (MEASURED BY AGILENT E5052A)
Frequency 24.000MHz

Frequency 35.328MHz

TYPICAL JITTER PERFORMANCE (MEASURED BY AGILENT E5052A)
Frequency 24.000MHz

Frequency 35.328MHz


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

Frequency in MHz

Line 1: X X.X X X

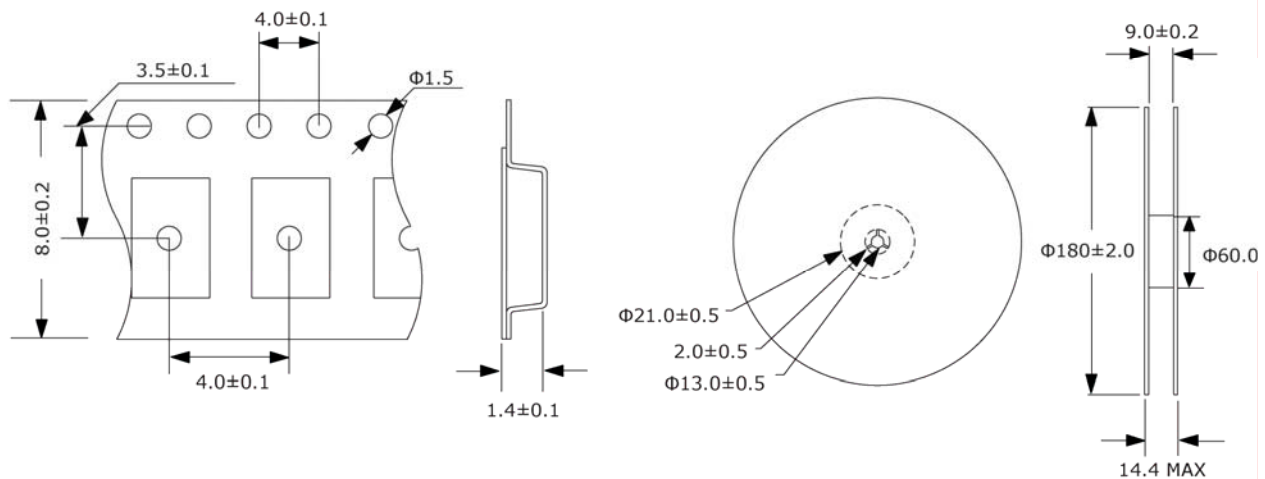
Line 2: S F Y W W

Suntsu Manufacturing Identifier

Week Year

TAPE AND REEL DIMENSIONS

3,000pcs/reel



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