

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>± 25ppm (Frequency Stability) Available</li> <li>Ceramic Package 4 Pad</li> <li>CMOS</li> <li>RoHS Compliant</li> <li>Programmed Oscillator</li> <li>Tape and Reel</li> </ul>	<ul style="list-style-type: none"> <li>Micro Processors</li> <li>FPGA</li> <li>Storage Area/Networking</li> <li>Digital Video</li> <li>Portable Computers</li> </ul>

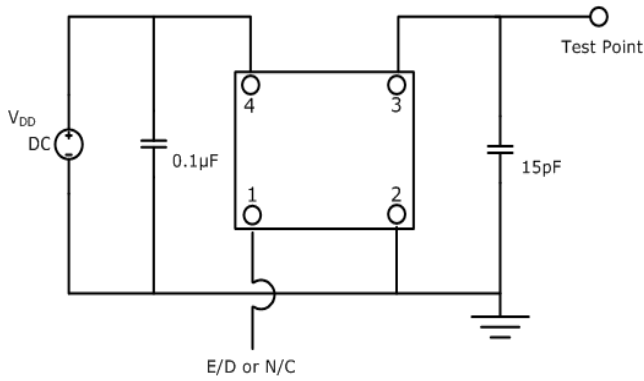


PART NUMBERING GUIDE	
<p><b>SUNTSU QUICK TURN OSC</b> → <b>SQC 53 C 3 A 48 1 - 50.000M</b> ← <b>FREQUENCY (MHz)</b></p> <p><b>5.0mm x 3.2mm</b> →</p> <p><b>CMOS</b> →</p> <p><b>SUPPLY VOLTAGE</b> 3: 3.3V± 5% 5: 5.0V± 5%</p> <p><b>FREQUENCY STABILITY</b> A: ± 50ppm B: ± 30ppm C: ± 25ppm * D: ± 20ppm</p>	<p><b>TRI-STATE (ENABLE/ DISABLE)</b> BLANK: NO CONNECTION 1: Pin 1</p> <p><b>OPERATING TEMPERATURE RANGE</b> 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</p>
<p>Cage Code: 4GUT4 To customize your parameters contact a Suntsu representative. * For frequency stability option D contact a Suntsu representative.</p>	

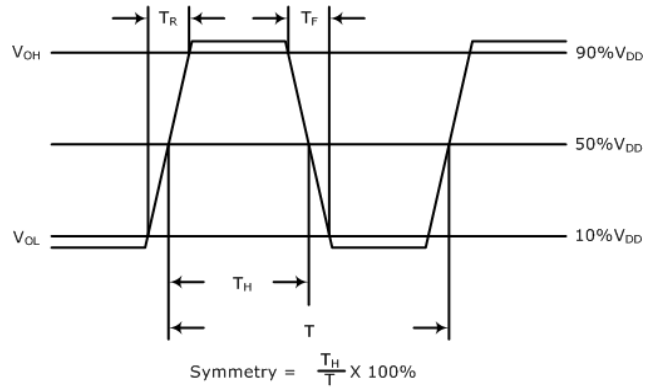
ELECTRICAL PARAMETERS	UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range	MHz	1		133	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Operating Temperature, Output Load Change, Supply Voltage Change, and First Year Aging at 25°C.)	ppm	-20		+ 20	See part numbering guide for options.
Operating Temperature	°C	-40		+ 85	See part numbering guide for options.
Storage Temperature		-55		+ 125	
Supply Voltage (V <sub>DD</sub> )	3.3V Option	3.135	3.3	3.465	
	5.0V Option	4.750	5.0	5.250	
Current (I <sub>DD</sub> )	3.3V Option			25	
	5.0V Option			45	
Output Load (CMOS)	pF			15	
Output Logic Levels	Output Logic High (V <sub>OH</sub> )	0.9* V <sub>DD</sub>			
	Output Logic Low (V <sub>OL</sub> )			0.1* V <sub>DD</sub>	
Rise (T <sub>R</sub> ) and Fall (T <sub>F</sub> ) Time	ns			4	
Symmetry (Duty Cycle)	%	45	50	55	
Tri-State Input Voltage(3.3V)	Enable	0.7* V <sub>DD</sub>			No Connection.
	Disable			0.3* V <sub>DD</sub>	
Tri-State Input Voltage(5.0V)	Enable	2.0			No Connection.
	Disable			0.8	
Start-Up Time	ms			10	
Phase Jitter (12kHz ~ 20MHz)	ps			11	

OUTLINE DRAWING											
	<p>RECOMMENDED LAND PATTERN</p>										
	<table border="1"> <thead> <tr> <th>PIN</th> <th>FUNCTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TRI-STATE or NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>OUTPUT</td> </tr> <tr> <td>4</td> <td>V<sub>DD</sub></td> </tr> </tbody> </table>	PIN	FUNCTION	1	TRI-STATE or NC	2	GND	3	OUTPUT	4	V <sub>DD</sub>
PIN	FUNCTION										
1	TRI-STATE or NC										
2	GND										
3	OUTPUT										
4	V <sub>DD</sub>										
<p>NOTE: Dimensions in millimeters (mm).</p>											

### TEST CIRCUIT (CMOS)

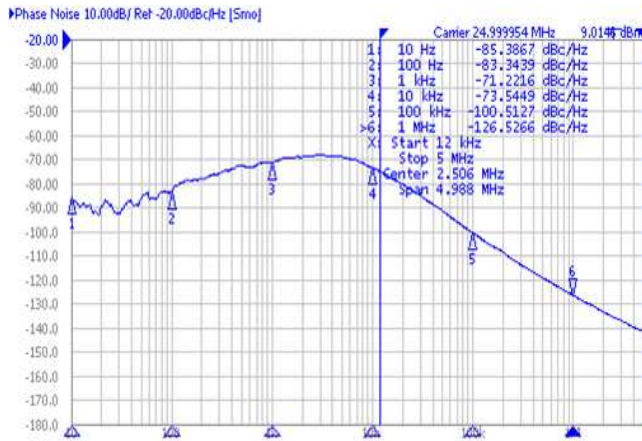


### WAVEFORM (CMOS)

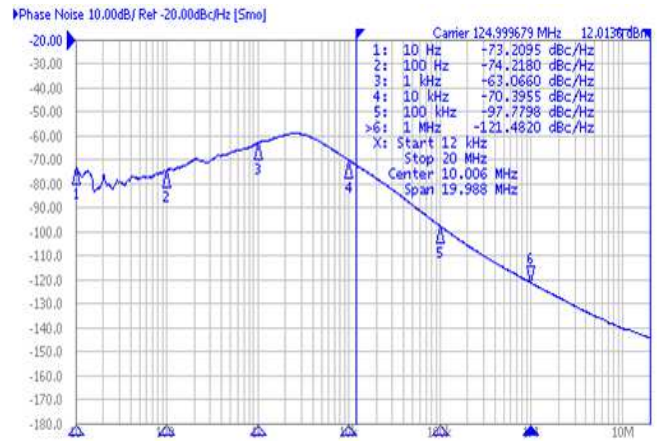


### TYPICAL PHASE NOISE PERFORMANCE (MEASURED BY AGI LENT E5052A)

#### Frequency 25.000MHz

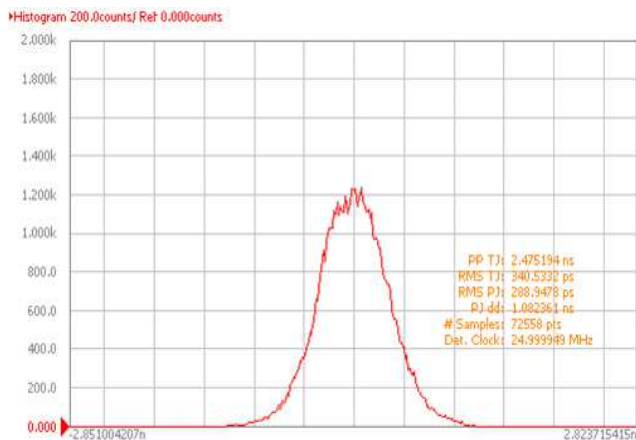


#### Frequency 125.000MHz

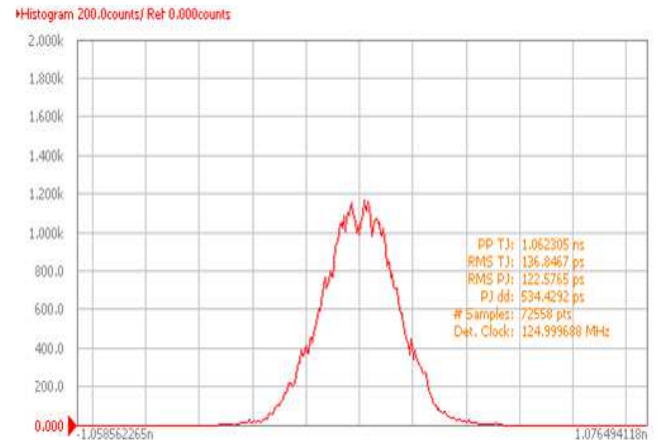


### TYPICAL JITTER PERFORMANCE (MEASURED BY AGI LENT E5052A)

#### Frequency 25.000MHz



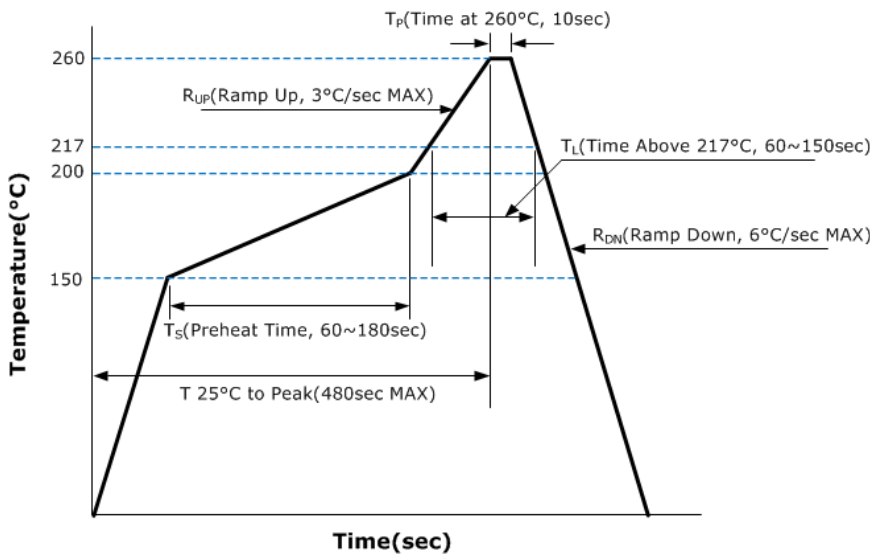
#### Frequency 125.000MHz



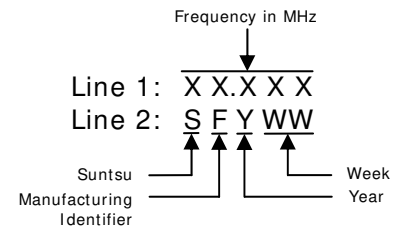
### ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

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

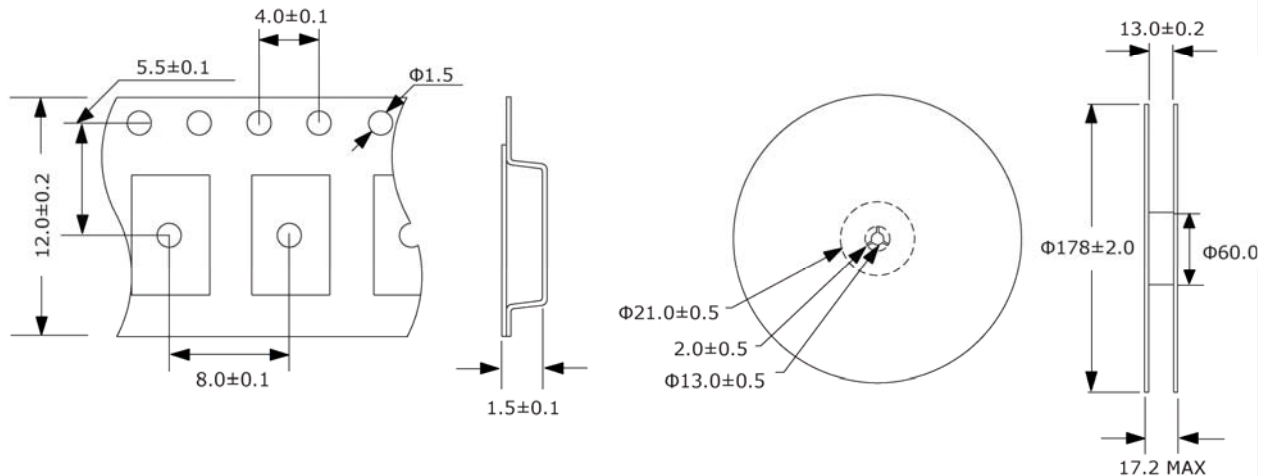


### MARKING



### TAPE AND REEL DIMENSIONS

1,000pcs/reel



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