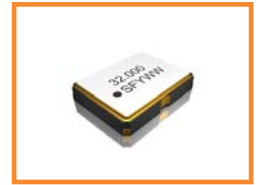


FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>- ±1.0ppm (Frequency Stability) Available</li> <li>- CMOS</li> <li>- (VC)TCXO</li> <li>- RoHS Compliant</li> <li>- Tape and Reel</li> </ul>	<ul style="list-style-type: none"> <li>- Base Stations</li> <li>- IP networking</li> <li>- Cellular and Cordless Phones</li> </ul>



### PART NUMBERING GUIDE

**SUNTSU TCXO** → **STC 32 C 33 R 48 V E - 32.000M** ← **FREQUENCY (MHz)**

**3.2mm x 2.5mm**

**CMOS**

**SUPPLY VOLTAGE**  
 25: 2.5V±5%  
 27: 2.7V±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

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

**TCXO/VCTCXO**  
 BLANK: TCXO  
 V: VCTCXO

**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 Suntsu representative.

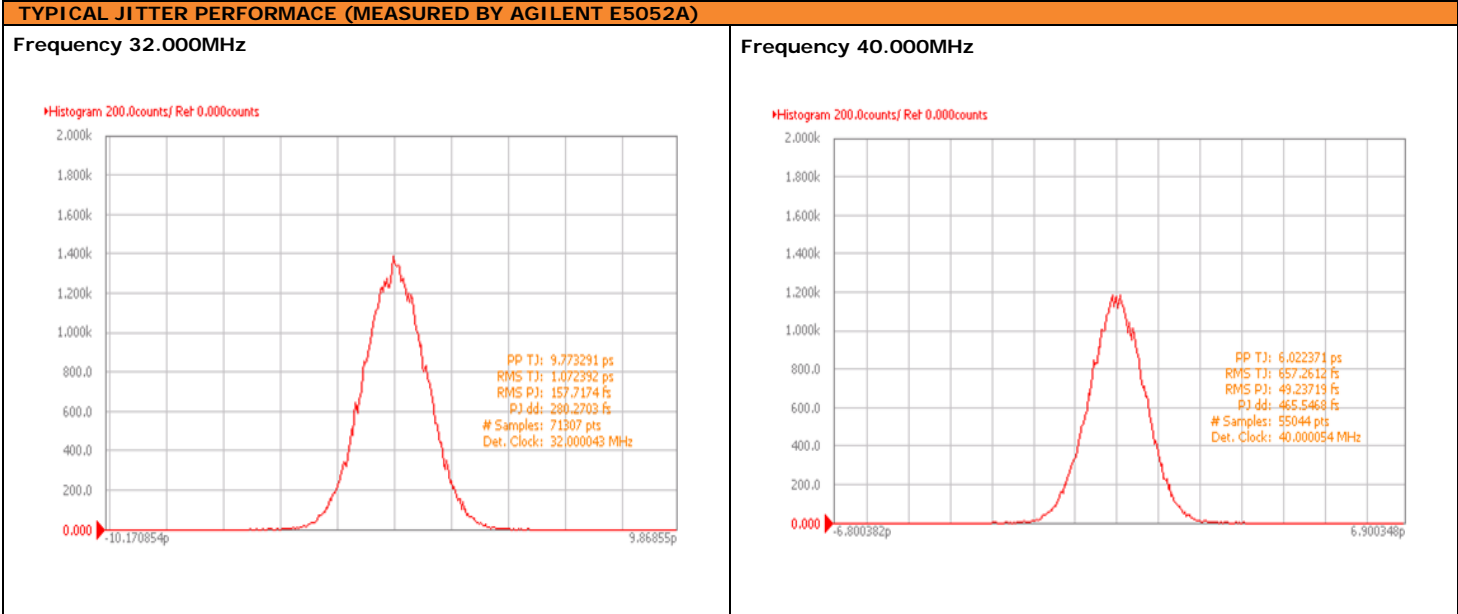
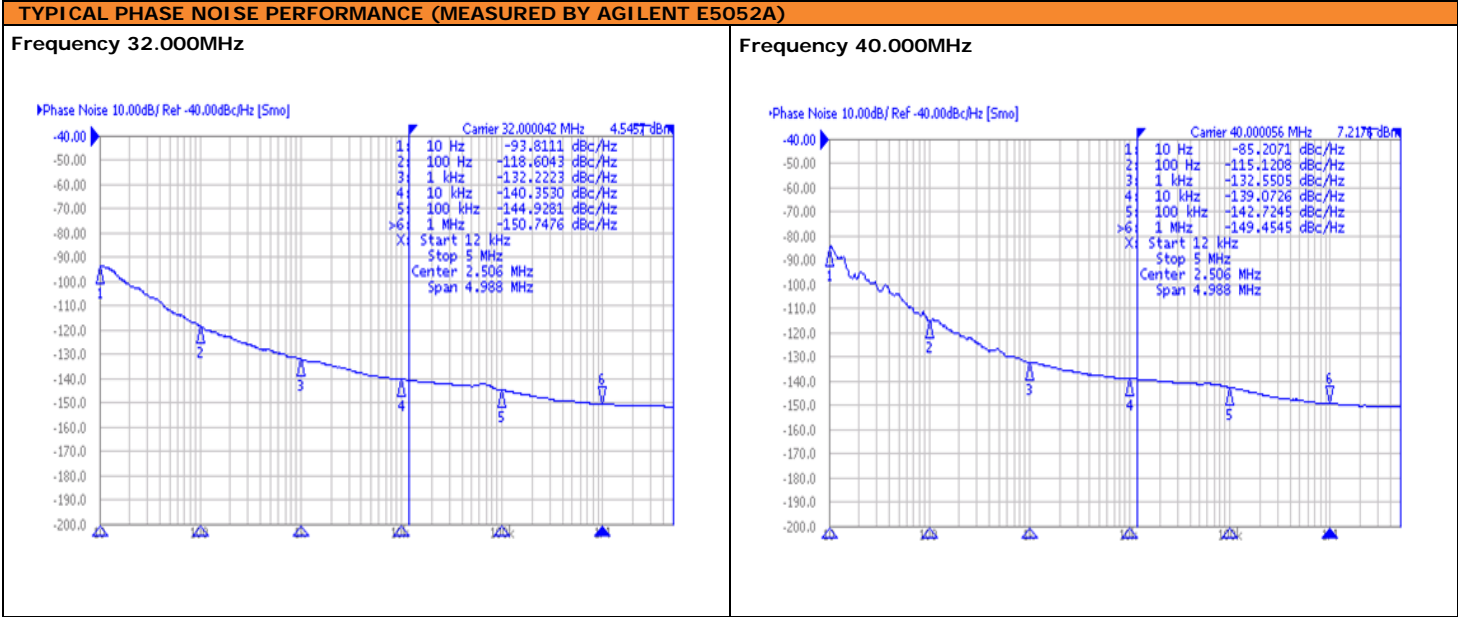
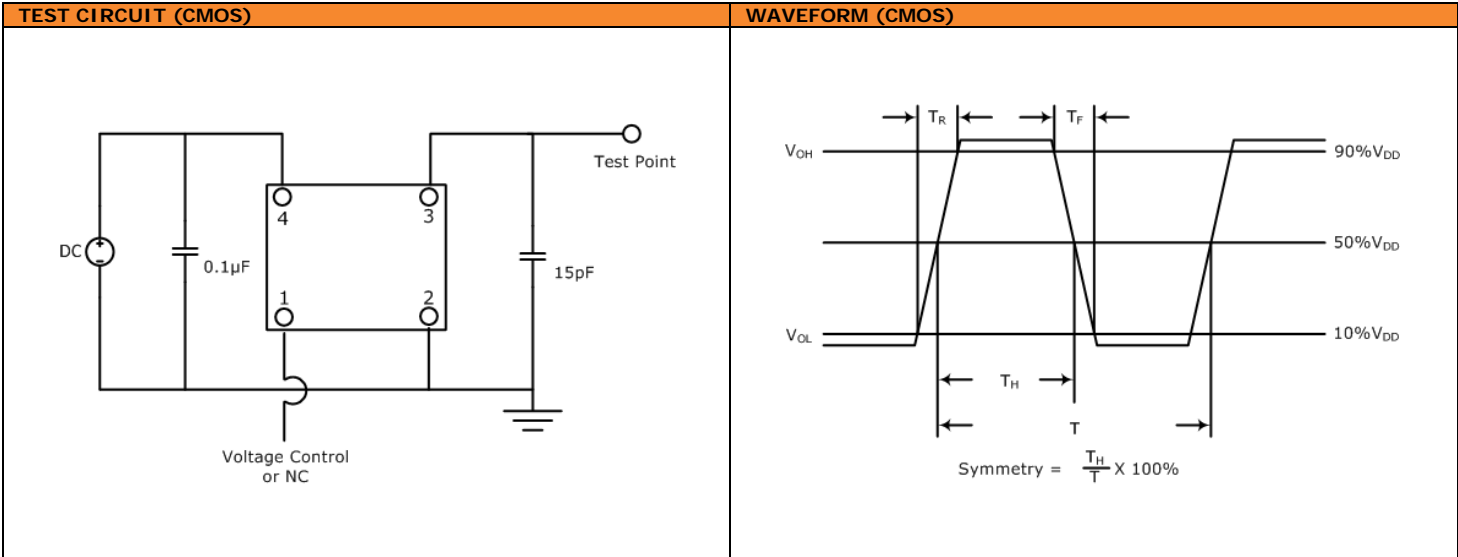
ELECTRICAL PARAMETERS	UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range	MHz	6		40	
Frequency Tolerance at +25°C		-1.5		+1.5	1 hour after reflow.
Frequency Stability vs. Operating Temperature (Ref. 25°C)		-1.0		1.0	See part numbering guide for options.
vs. Supply Voltage	ppm	-0.3		0.3	V <sub>DD</sub> ±5% change.
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 <sub>DD</sub> )	V	3.135	3.3	3.465	See part numbering guide for options.
Current (I <sub>DD</sub> )	mA			6	
Control Voltage (V <sub>C</sub> , VCTCXO)	V	0		V <sub>DD</sub>	Center Voltage: V <sub>DD</sub> *50%.
Pullability (VCTCXO)	ppm	±5.0		±12.0	See part numbering guide for options.
Linearity (VCTCXO)	%			10	
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			5	
Symmetry (Duty Cycle)	%	45	50	55	
Start-Up Time	ms			3	
VC Input Impedance (VCTCXO)	kΩ	100			
Phase Noise (Typical)	10Hz Offset			-85	
	100Hz Offset			-115	
	1kHz Offset			-135	
	10kHz Offset			-145	
	100kHz Offset			-150	

### OUTLINE DRAWING

RECOMMENDED LAND PATTERN

PIN	FUNCTION
1	V <sub>C</sub> (VCTCXO) or NC (TCXO)
2	GND
3	OUTPUT
4	V <sub>DD</sub>

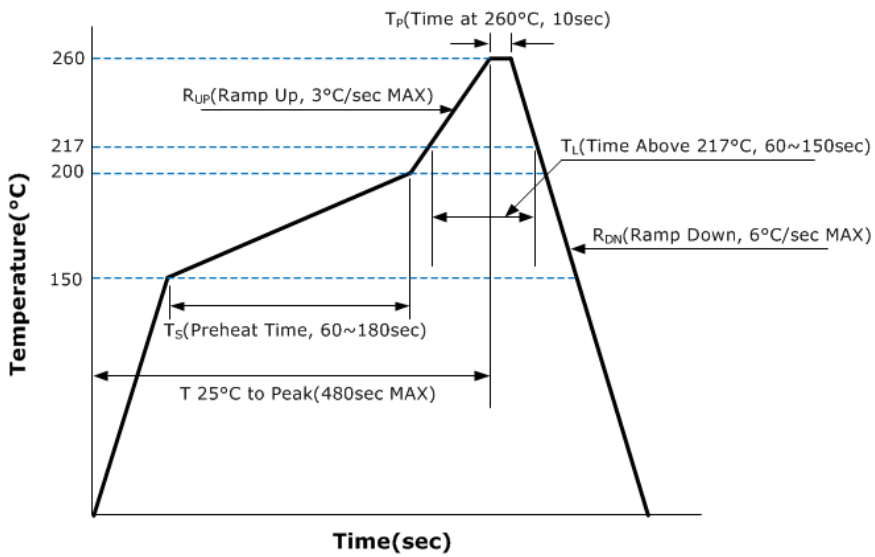
NOTE: Dimensions in millimeters (mm).



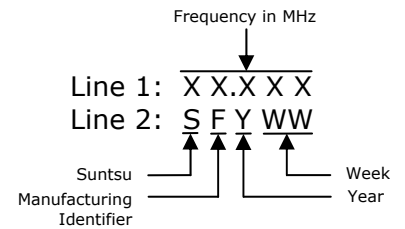
### ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

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

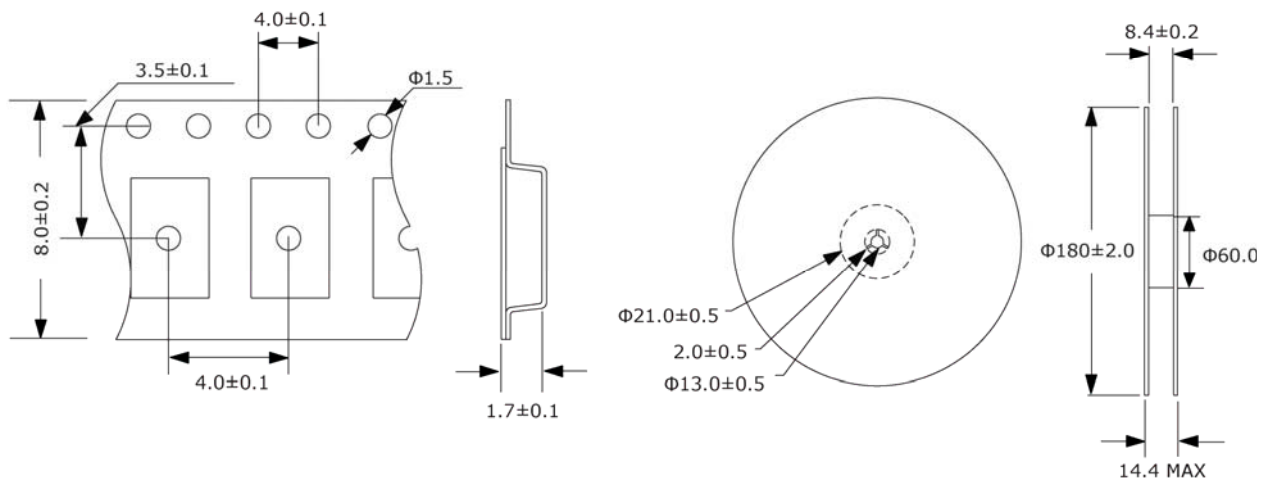


### MARKING



### TAPE AND REEL DIMENSIONS

3,000pcs/reel



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