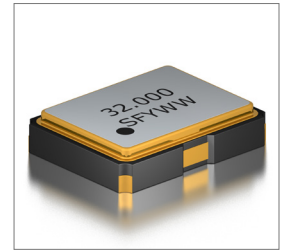


Features
<ul style="list-style-type: none"> <li>±2.5ppm (Frequency Stability) Available</li> <li>CMOS</li> <li>TCXO</li> <li>Tape and Reel</li> </ul>

Applications
<ul style="list-style-type: none"> <li>Base Stations</li> <li>IP networking</li> <li>Cellular and Cordless Phones</li> </ul>



**Part Numbering Guide**

**STC 21 C 33 O 48 - 32.000M**

SUNTSU TCXO

2.0mm x 1.6mm

CMOS

**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**  
MHz

**OPERATING TEMPERATURE RANGE**

07 : 0°C - +70°C

16 : -10°C - +60°C


17 : -10°C - +70°C

27 : -20°C - +70°C

38 : -30°C - +85°C

48 : -40°C - +85°C

**FREQUENCY STABILITY**  
O : ±2.5ppm

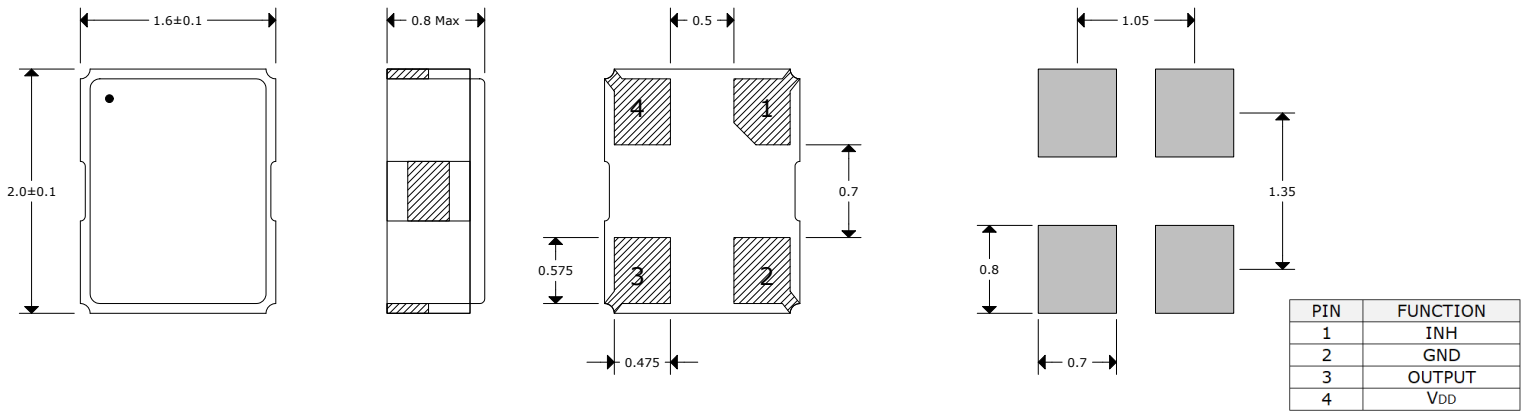
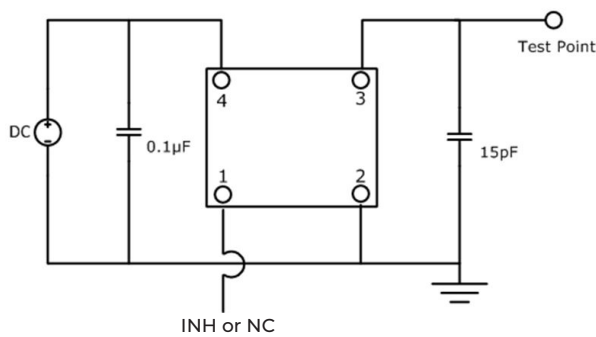


Cage Code: 4GUT4  
To customize your parameters contact a Suntsu representative.

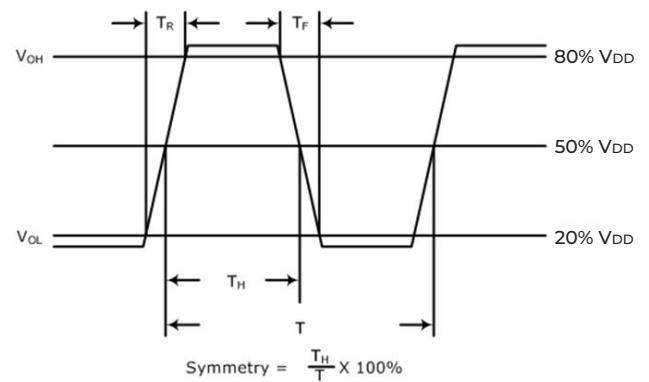
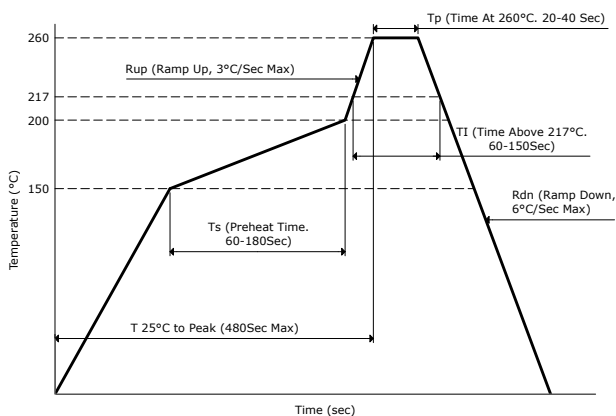
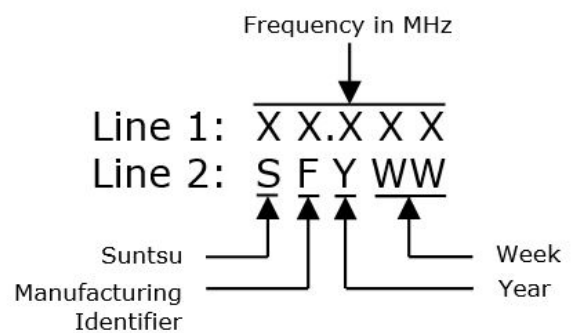
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	8		70	
Frequency Tolerance at +25°C	ppm	-2.0		2.0	After 2 times reflow
Freq. Stability vs. Op Temp.	ppm	-2.5		2.5	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppm	-0.2		0.2	V <sub>DD</sub> ±5% Change
Freq. Stability vs. Load	ppm	-0.2		0.2	±5% Change
Freq. Stability vs. Aging	ppm	-2.0		2.0	1 Year
Operating Temperature	°C	-40		85	See part numbering guide for options.
Storage Temperature	°C	-55		125	
Supply Voltage (V <sub>DD</sub> ) - 1.8V Option	V	1.710	1.8	1.890	
Supply Voltage (V <sub>DD</sub> ) - 2.5V Option	V	2.375	2.5	2.625	
Supply Voltage (V <sub>DD</sub> ) - 2.7V Option	V	2.565	2.7	2.835	
Supply Voltage (V <sub>DD</sub> ) - 2.8V Option	V	2.66	2.8	2.94	
Supply Voltage (V <sub>DD</sub> ) - 3.0V Option	V	2.85	3.0	3.15	
Supply Voltage (V <sub>DD</sub> ) - 3.3V Option	V	3.125	3.3	3.465	
Current (I <sub>DD</sub> )	mA			10	
Output Load (CMOS)	pF		15		
Output Logic HIGH Level (V <sub>OH</sub> )	V	0.8*V <sub>DD</sub>			
Output Logic LOW Level (V <sub>OL</sub> )	V			0.2*V <sub>DD</sub>	
Rise (T <sub>R</sub> ) And Fall (T <sub>F</sub> ) Time	ns			5	
Symmetry (Duty Cycle)	%	45		55	
Start-Up Time	ms			10	
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-145		

**Outline Drawing & Recommended Land Pattern**

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.


**Test Circuit (CMOS)**


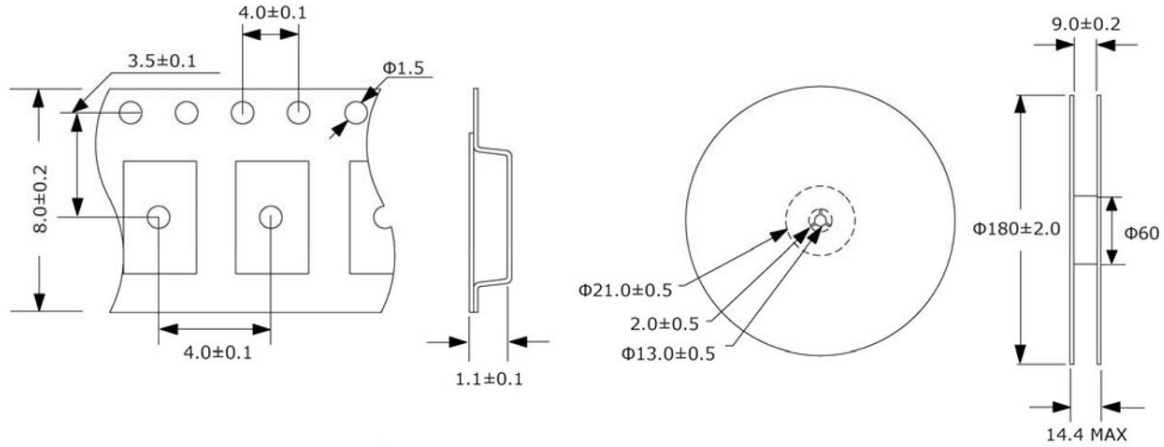
INH FUNCTION	
#1	#3 OUTPUT
OPEN	Active
"H" Level	Active
"L" Level	Oscillation Stopped

**Waveform (CMOS)**

**Reflow Profile**

**Part Marking**


**Tape And Reel Dimensions**

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.

3,000pcs/Reel



**Environmental 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
Solderability	MIL-STD-883, Method 2003
Moisture Sensitivity	J-STD-020, MSL 1

**Mechanical Specifications**

Mechanical Shock	MIL-STD-202, Method 213, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Resistance to Solvents	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K