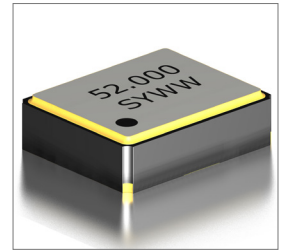


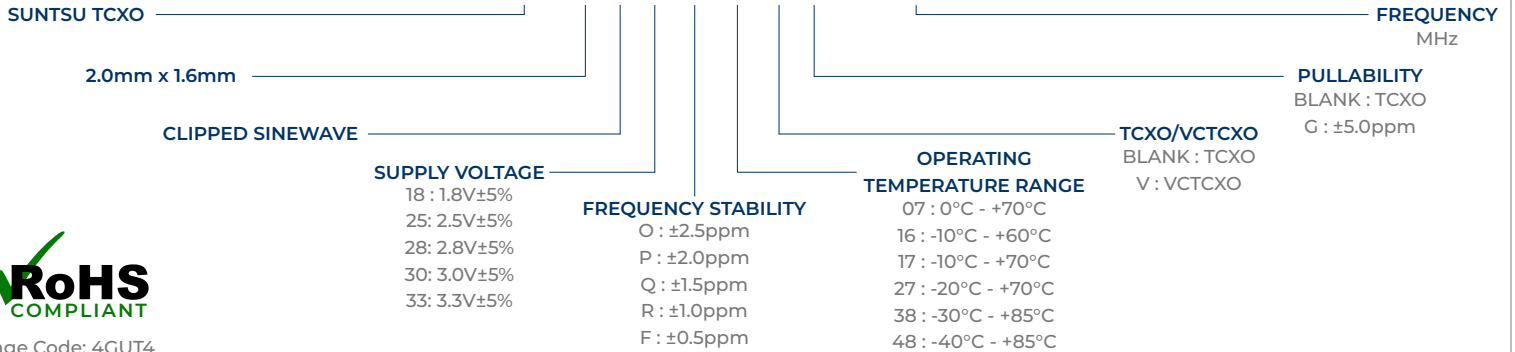
Features
<ul style="list-style-type: none"> <li>±0.5ppm (Frequency Stability) Available</li> <li>Clipped Sinewave</li> <li>(VC)TCXO</li> <li>Tape and Reel</li> </ul>

Applications
<ul style="list-style-type: none"> <li>GPS</li> <li>Mobile Communication Equipment</li> <li>IoT, Wearable Electronics</li> <li>WiMAX, WLAN</li> </ul>



### Part Numbering Guide

## STC 21 K 18 R 48 V G - 52.000M



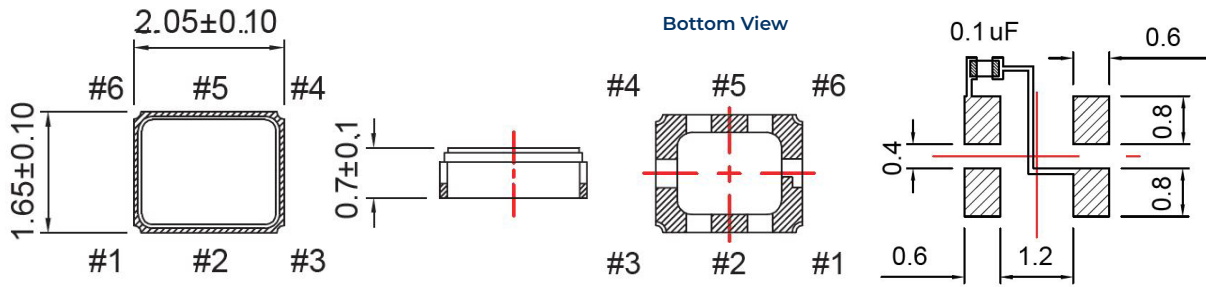
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	10		52	
Frequency Tolerance at +25°C	ppm	-2.0		+2.0	
Freq. Stability vs. Op Temp.	ppm	-0.5		+0.5	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	±10% change
Freq. Stability vs. Aging	ppm	-1.0		+1.0	1 Year
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Storage Temperature	°C	-40		+85	
Supply Voltage (V <sub>DD</sub> ) - 3.0V Option	V	2.85	3.0	3.15	See part numbering guide for options.
Current (I <sub>DD</sub> ) - 10MHz - 26MHz	mA			1.5	
Current (I <sub>DD</sub> ) - 26MHz - 52MHz	mA			2.0	
Control Voltage (V <sub>CTCXO</sub> ) - 1.8V	V	0.3		1.5	
Control Voltage (V <sub>CTCXO</sub> ) - 2.5V	V	0.4		2.4	
Control Voltage (V <sub>CTCXO</sub> ) - 2.8/3.0/3.3	V	0.5		2.5	
Pullability (V <sub>CTCXO</sub> )	ppm	±5.0			
Output Load (Clipped Sinewave)	kΩ/pF			10//10	
Output Logic Levels	V <sub>P-P</sub>	0.8			
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			2.0	
VC Input Impedance (V <sub>CTCXO</sub> )	kΩ	500			
Phase Noise (Typical) 100Hz Offset	dBc/Hz		-115		At 19.2MHz
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-135		At 19.2MHz
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-148		At 19.2MHz

### Outline Drawing & Land Pattern

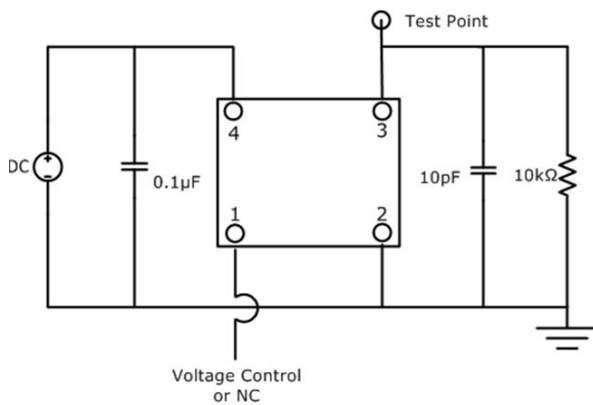
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



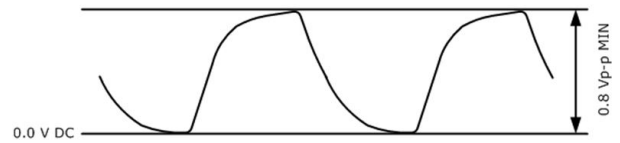
PIN	FUNCTION
1	VCON: VC-TCXO GND: TCXO
2	No Connection
3	GND
4	Output
5	No Connection
6	VDD

To ensure optimal oscillator performance, place a by-pass Capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

### Test Circuit (Clipped Sinewave)



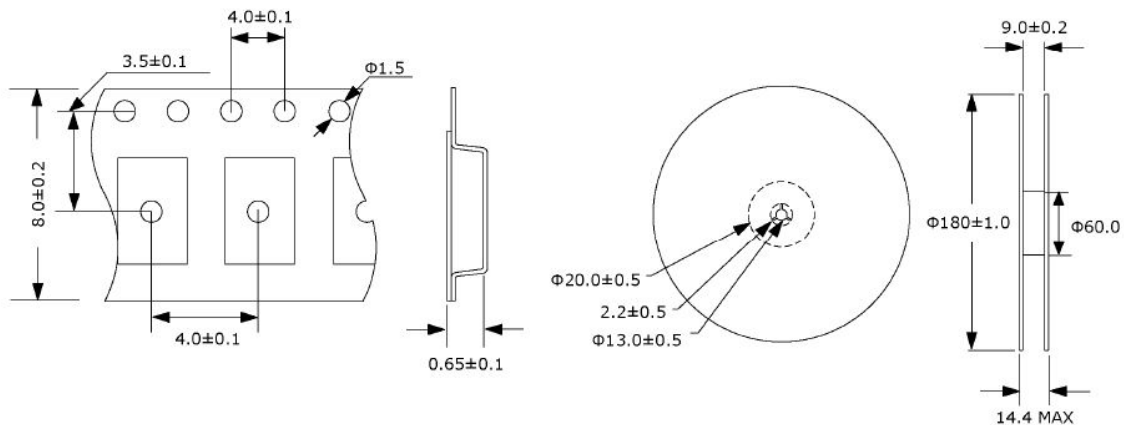
### Waveform (Clipped Sinewave)



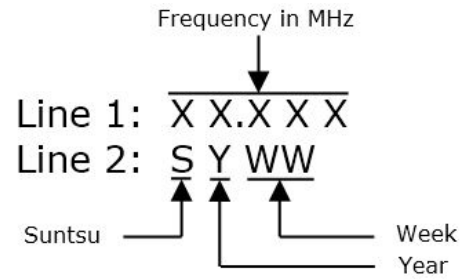
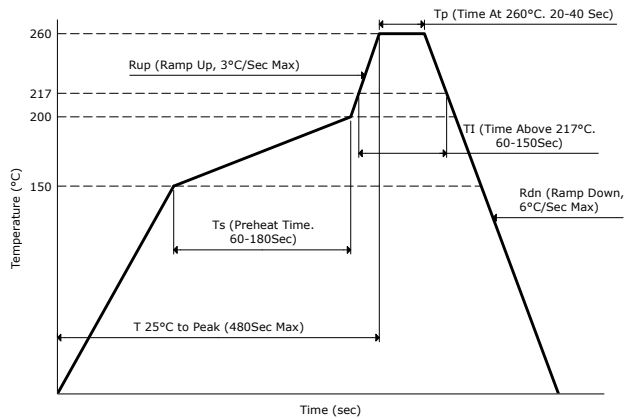
### Tape And Reel Dimensions

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

3,000pcs/Reel



### Reflow Profile & Part Marking



#### 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