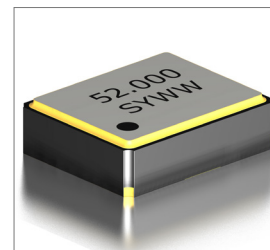


Features

- $\pm 0.5\text{ppm}$ (Frequency Stability) Available
- Clipped Sinewave
- (VC)TCXO
- Tape and Reel

Applications

- GPS
- Mobile Communication Equipment
- IoT, Wearable Electronics
- WiMAX, WLAN



Part Numbering Guide

STC 21 K 18 R 48 V G - 52.000M

SUNTSU TCXO

2.0mm x 1.6mm

CLIPPED SINEWAVE

SUPPLY VOLTAGE

18 : 1.8V $\pm 5\%$
25: 2.5V $\pm 5\%$
28: 2.8V $\pm 5\%$
30: 3.0V $\pm 5\%$
33: 3.3V $\pm 5\%$

FREQUENCY STABILITY

O : $\pm 2.5\text{ppm}$
P : $\pm 2.0\text{ppm}$
Q : $\pm 1.5\text{ppm}$
R : $\pm 1.0\text{ppm}$
F : $\pm 0.5\text{ppm}$

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

TCXO/VCTCXO

BLANK : TCXO
V : VCTCXO

FREQUENCY
MHz

PULLABILITY

BLANK : TCXO
G : $\pm 5.0\text{ppm}$



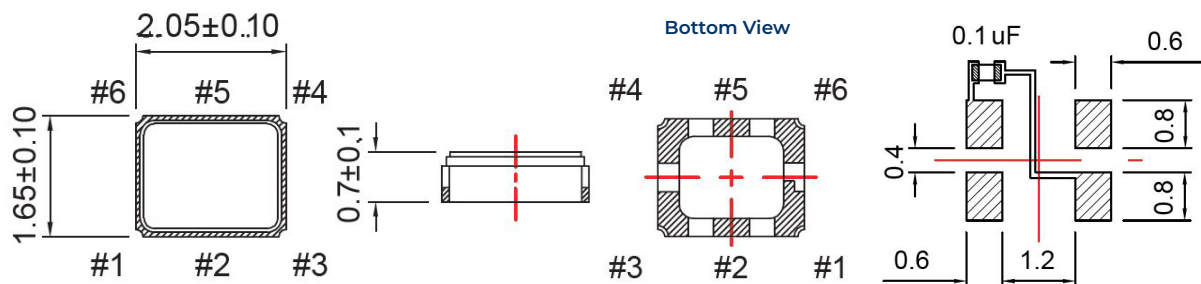
Cage Code: 4GUT4

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 _{DD} $\pm 5\%$ change.
Freq. Stability vs. Load	ppm	-0.2		+0.2	$\pm 10\%$ 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 _{DD}) - 3.0V Option	V	2.85	3.0	3.15	See part numbering guide for options.
Current (I _{DD}) - 10MHz - 26MHz	mA			1.5	
Current (I _{DD}) - 26MHz - 52MHz	mA			2.0	
Control Voltage (VCTCXO) - 1.8V	V	0.3		1.5	
Control Voltage (VCTCXO) - 2.5V	V	0.4		2.4	
Control Voltage (VCTCXO) - 2.8/3.0/3.3	V	0.5		2.5	
Pullability (VCTCXO)	ppm	± 5.0			
Output Load (Clipped Sinewave)	k Ω /pF			10//10	
Output Logic Levels	V _{P-P}	0.8			
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			2.0	
VC Input Impedance (VCTCXO)	k Ω	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

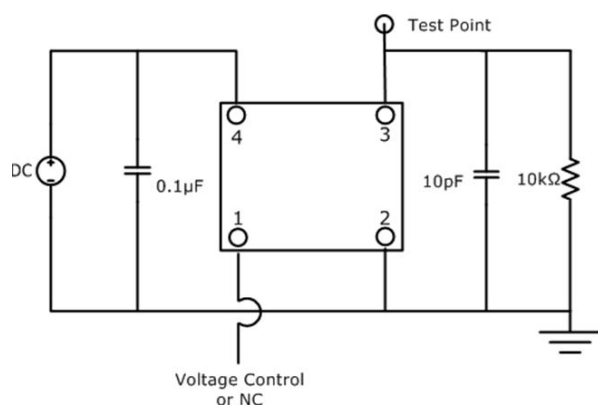
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



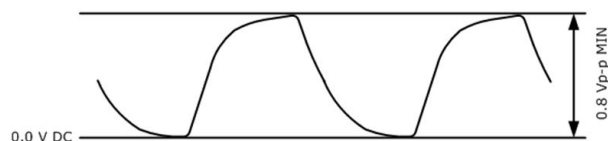
PIN	FUNCTION
1	VCON: VC-TCXO GND: TCXO
2	No Connection
3	GND
4	Output
5	No Connection
6	VDD

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)



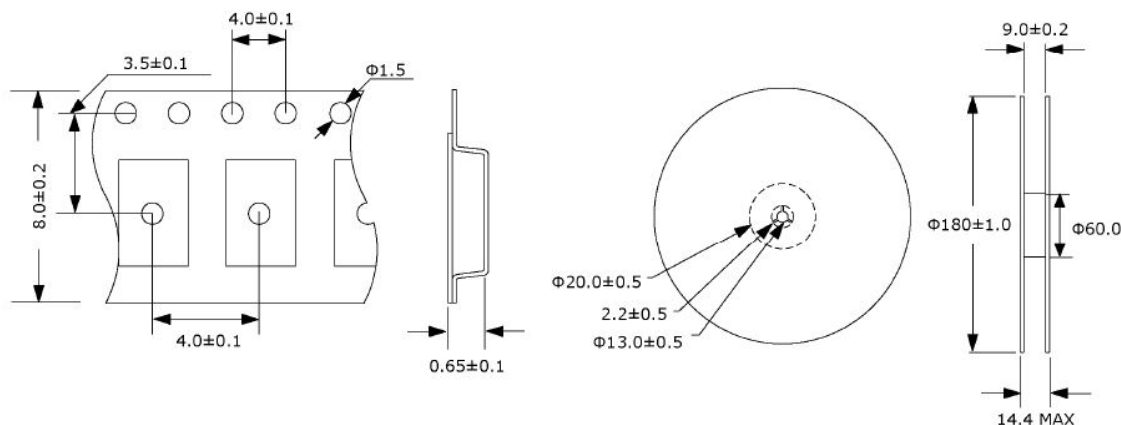
Waveform (Clipped Sinewave)

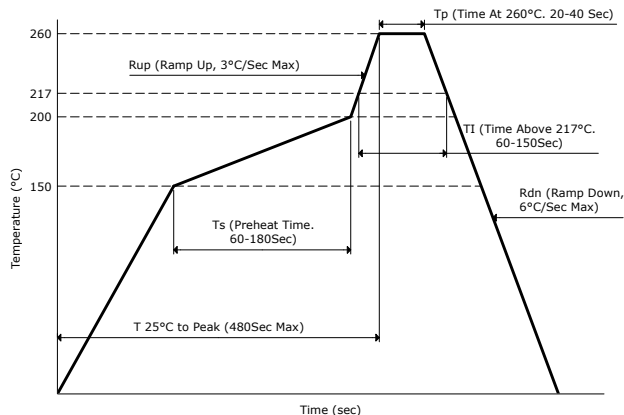


Tape And Reel Dimensions

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

3,000pcs/Reel



Reflow Profile & Part Marking


Frequency in MHz

Line 1: X X.X X X

Line 2: S Y WW

Suntsu Week
 Year

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