

Features
• ± 0.5 ppm (Frequency Stability) Available
• Clipped Sinewave
• (VC)TCXO
• Tape and Reel
• H-Type Package

Applications
• GPS
• Mobile Communication Equipment
• IoT, Wearable Electronics
• WiMAX, WLAN



Part Numbering Guide

STH 22 K 30 R 48 V E - 26.000M

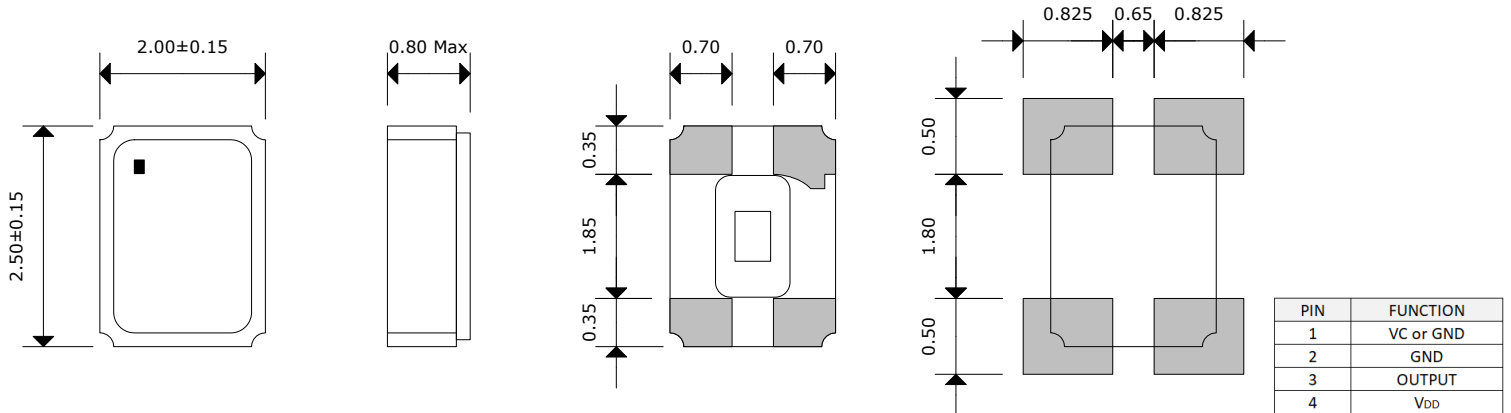
<p>SUNTSU TCXO H-Type</p> <p>2.5mm x 2.0mm</p> <p>CLIPPED SINEWAVE</p>	<p>SUPPLY VOLTAGE</p> <p>18 : 1.8V\pm5%</p> <p>25 : 2.5V\pm5%</p> <p>27 : 2.7V\pm5%</p> <p>28 : 2.8V\pm5%</p> <p>30 : 3.0V\pm5%</p> <p>33 : 3.3V\pm5%</p>	<p>FREQUENCY STABILITY</p> <p>P : ± 2.0ppm</p> <p>Q : ± 1.5ppm</p> <p>R : ± 1.0ppm</p> <p>F : ± 0.5ppm</p>	<p>OPERATING TEMPERATURE RANGE</p> <p>07 : 0°C - +70°C</p> <p>16 : -10°C - +60°C</p> <p>17 : -10°C - +70°C</p> <p>27 : -20°C - +70°C</p> <p>38 : -30°C - +85°C</p>	<p>FREQUENCY MHz</p> <p>PULLABILITY</p> <p>BLANK : TCXO</p> <p>H : ± 16.00ppm</p> <p>I : ± 7.0ppm</p> <p>TCXO/VCTCXO</p> <p>BLANK : TCXO</p> <p>V : VCTCXO</p>
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Cage Code: 4GUT4
To customize your parameters contact a Suntsu representative.

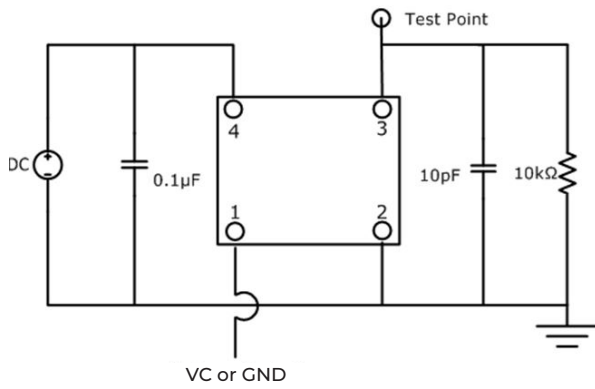
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	13		52	
Frequency Tolerance at +25°C	ppm	-2.5		2.5	After 2 times reflow
Freq. Stability vs. Op Temp.	ppm	-0.5		0.5	See part numbering guide for options
Freq. Stability vs. Supply Voltage	ppm	-0.2		0.2	$\pm 5\%$ change
Freq. Stability vs. Load	ppm	-0.2		0.2	$\pm 10\%$ change
Freq. Stability vs. Aging 1 Year	ppm	-1.0		1.0	
Freq. Stability vs. Aging 10 Years	ppm	-5.0		5.0	
Operating Temperature	°C	-30		85	See part numbering guide for options.
Storage Temperature	°C	-40		85	
Supply Voltage (V _{DD})	V	1.8		3.3	See part numbering guide for options.
Current (I _{DD})	mA			2.0	
Control Voltage (V _c , VCTCXO)	V	0.4		2.4	Center Voltage: V _{DD} *50%.
Pullability (VCTCXO)	ppm	± 7.0		± 16.0	See part numbering guide for options.
Linearity (VCTCXO)	%	-10		+10	
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			5.0	
VC Input Impedance (VCTCXO)	k Ω	500			
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-130		

Outline Drawing and Land Pattern

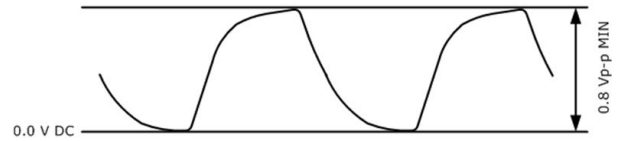
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



Test Circuit (Clipped Sinewave)



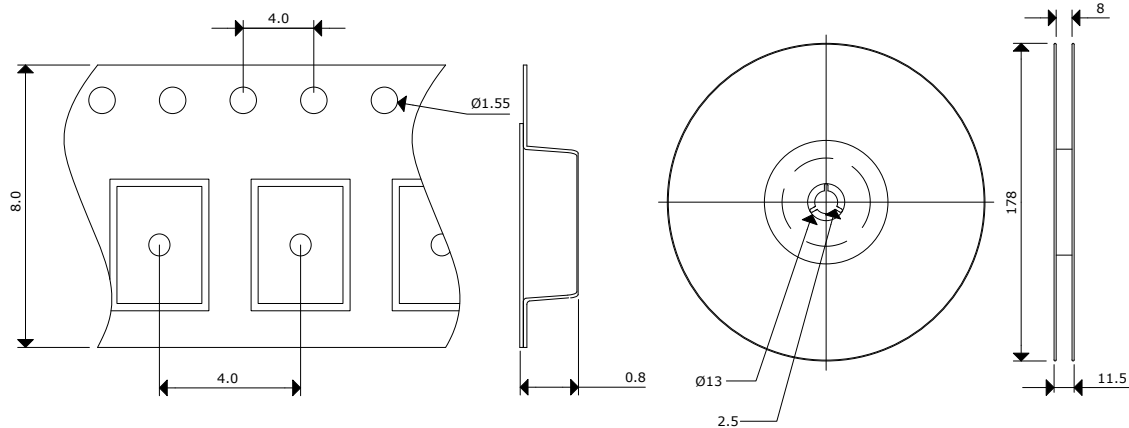
Waveform (Clipped Sinewave)



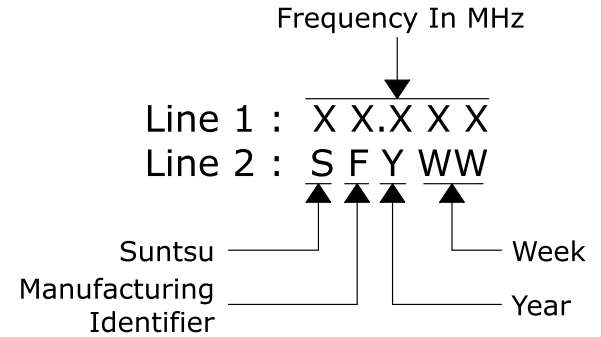
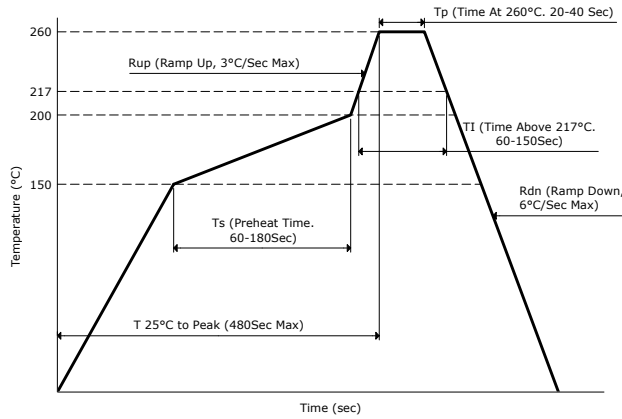
Tape And Reel Dimensions

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

3,000pcs/Reel



Reflow Profile & Part Marking



Environmental Specifications		Mechanical Specifications	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	MIL-STD-202, Method 213, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A	Vibration	MIL-STD-883, Method 2007, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C	Moisture Resistance	MIL-STD-883, Method 1004
Solderability	MIL-STD-883, Method 2003	Resistance to Solvents	MIL-STD-202, Method 215
Moisture Sensitivity	J-STD-020, MSL 1	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K