

Features

- $\pm 10\text{ppm}/\pm 10\text{ppm}$ (Tolerance/Stability) Available
- Ultra-Miniature Package
- AT-Cut Fundamental
- Tape and Reel

Applications

- High Density Applications
- PCMCIA
- Wireless Applications
- Computers and Modems



Part Numbering Guide

SXT 32 4 18 A A 48 T - 20.000M



SUNTSU CRYSTAL

3.2mm x 2.5mm

4 PAD

LOAD CAPACITANCE
S : Series
6-32 : 6pF - 32pF

FREQUENCY TOLERANCE
A : $\pm 50\text{ppm}$
B : $\pm 30\text{ppm}$
C : $\pm 25\text{ppm}$
D : $\pm 20\text{ppm}$
E : $\pm 15\text{ppm}$
F : $\pm 10\text{ppm}$

FREQUENCY STABILITY
A : $\pm 50\text{ppm}$
B : $\pm 30\text{ppm}$
C : $\pm 25\text{ppm}$
D : $\pm 20\text{ppm}$
E : $\pm 15\text{ppm}$
F : $\pm 10\text{ppm}^*$

OPERATING TEMPERATURE
RANGE**

07 : $0^{\circ}\text{C} - +70^{\circ}\text{C}$
16 : $-10^{\circ}\text{C} - +60^{\circ}\text{C}$
17 : $-10^{\circ}\text{C} - +70^{\circ}\text{C}$
27 : $-20^{\circ}\text{C} - +70^{\circ}\text{C}$
38 : $-30^{\circ}\text{C} - +85^{\circ}\text{C}$
48 : $-40^{\circ}\text{C} - +85^{\circ}\text{C}$

FREQUENCY
MHz

MODE OF OPERATION

Blank : Fundamental
T : 3rd Overtone

Cage Code: 4GUT4

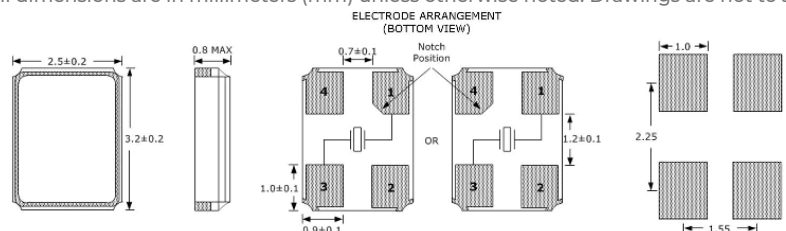
To customize your parameters contact a Suntsu representative.

* For frequency stability option F contact a Suntsu representative. ** For operating temperatures of -55 - 125°C a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	8		70	AT-Cut Fundamental.
Frequency Range	MHz	60		170	3rd Overtone
Frequency Tolerance at $+25^{\circ}\text{C}$	ppm	-10		+10	See part numbering guide for options.
Frequency Stability vs. Op Temp	ppm	-10		+10	See part numbering guide for options.
Frequency Stability vs. Aging	ppm	-2		+2	First year @ $+25^{\circ}\text{C}$.
Operating Temperature	$^{\circ}\text{C}$	-40		+85	See part numbering guide for options.
Storage Temperature	$^{\circ}\text{C}$	-40		+125	
Load Capacitance	pF	6		32	See part numbering guide for options.
Shunt Capacitance	pF			5	
Drive Level	μW		10	100	
Insulation Resistance	M Ω	500			@ 100VDC $\pm 15\text{V}$.
8.000MHz ~ 9.999MHz	Ω			250	AT-Cut Fundamental
10.000MHz ~ 11.999MHz	Ω			250	AT-Cut Fundamental
12.000MHz ~ 15.999MHz	Ω			100	AT-Cut Fundamental
ESR - 16.000MHz ~ 19.999MHz	Ω			70	AT-Cut Fundamental
20.000MHz ~ 29.999MHz	Ω			50	AT-Cut Fundamental
30.000MHz ~ 49.999MHz	Ω			40	AT-Cut Fundamental
50.000MHz ~ 70.000MHz	Ω			35	AT-Cut Fundamental
60.000MHz ~ 170.000MHz	Ω			80	3rd Overtone

Outline Drawing & Recommended Landed Pattern

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



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	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Moisture Resistance	MIL-STD-883, Method 1004	Resistance to Solvents	MIL-STD-202, Method 215
Moisture Sensitivity	J-STD-020, MSL 1	Solderability	MIL-STD-883, Method 2003

