

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> - $\pm 10\text{ppm}/\pm 10\text{ppm}$ (Tolerance/Stability) Available - Ultra-Miniature Package - AT-Cut Fundamental - RoHS Compliant - Tape and Reel 	<ul style="list-style-type: none"> - Bluetooth - Wireless LAN - High Density Applications



PART NUMBERING GUIDE

SUNTSU CRYSTAL → **SXT 11 4 12 A A 48 - 20.000M** ← FREQUENCY (MHz)

1.6mm x 1.2mm

4PADS

LOAD CAPACITANCE
S: SERIES
8 - 12: 8pF - 12pF

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: $\pm 10\text{ppm}$

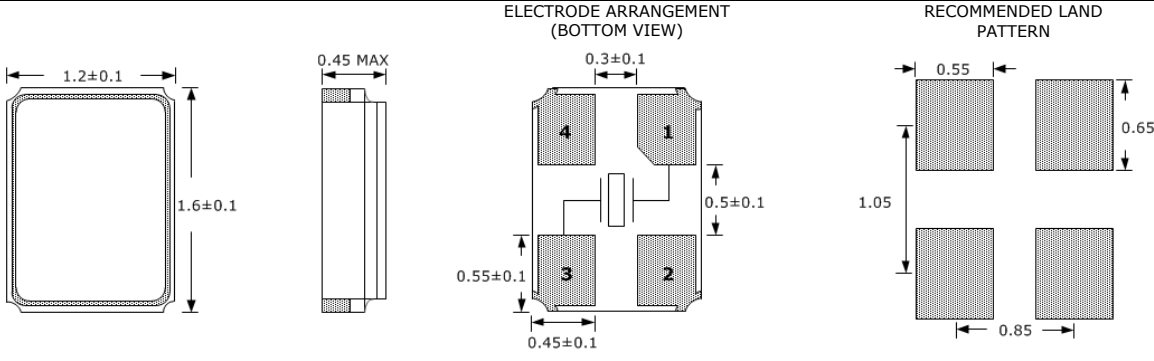
OPERATING TEMPERATURE RANGE
07: 0°C to + 70°C
16: -10°C to + 60°C
17: -10°C to + 70°C
27: -20°C to + 70°C
38: -30°C to + 85°C
48: -40°C to + 85°C

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: $\pm 10\text{ppm}$ *

Cage Code: 4GUT4
To customize your parameters contact a Suntsu representative.
*Frequency stability F option is not available for temperature 38 and 48 options.

ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range	AT-Cut Fundamental	MHz	26		54	
Frequency Tolerance at +25°C		ppm	-10		+10	See part numbering guide for options.
Temperature Stability ref. to +25°C Over Operating Temperature		ppm	-10		+10	See part numbering guide for options.
Operating Temperature		°C	-40		+85	See part numbering guide for options.
Storage Temperature		°C	-40		+85	
Load Capacitance		pF	8		12	See part numbering guide for options.
Shunt Capacitance		pF			3	
Drive Level		μW		10	100	
Aging		ppm	-2		+2	First year @ +25°C.
Insulation Resistance		M Ω	500			@ 100V _{DC} \pm 15V.
Equivalent Series Resistance	26.000MHz ~ 29.999MHz	Ω			150	AT-Cut Fundamental.
	30.000MHz ~ 54.000MHz				100	AT-Cut Fundamental.

OUTLINE DRAWING



NOTE: Dimensions in millimeters (mm).

ENVIRONMENTAL & MECHANICAL 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
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003

