

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> ±20ppm/±30ppm (Tolerance/Stability) Available RoHS Compliant Wide Frequency Range AT-Cut Bulk Packing 	<ul style="list-style-type: none"> Computer Peripherals Microprocessor Test Equipment



PART NUMBERING GUIDE

SUNTSU CYLINDRICAL MHz CRYSTAL → **SCM 83 2 18 A A 48 T - 48.000M** ← **FREQUENCY (MHz)**

8.3mm x 3.2mm

2 LEAD

LOAD CAPACITANCE
S: SERIES
7 - 30: 7pF - 30pF

FREQUENCY TOLERANCE
A: ±50ppm
B: ±30ppm
C: ±25ppm
D: ±20ppm

FREQUENCY STABILITY
A: ±50ppm
B: ±30ppm

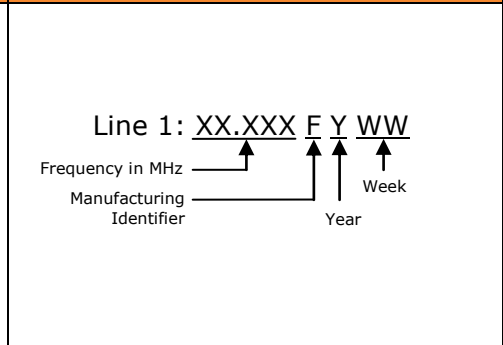
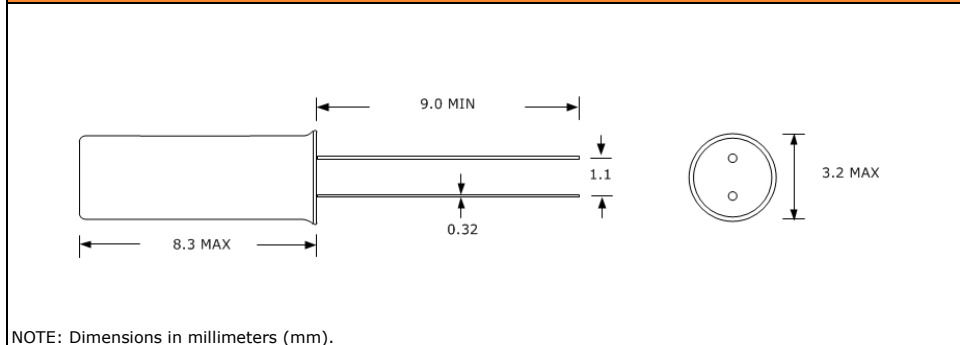
MODE OF OPERATION
BLANK: FUNDAMENTAL
T: THIRD OVERTONE

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

Cage Code: 4GUT4
To customize your parameters contact a Suntsu representative.

ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range		MHz	3.579545		29.999	AT-Cut Fundamental.
			30		90	3 rd Overtone.
Frequency Tolerance at +25°C		ppm	-20		+20	See part numbering guide for options.
Frequency Stability vs. Operating Temperature (Ref. 25°C)		ppm	-30		+30	See part numbering guide for options.
vs. Aging			-5		+5	First year @ +25°C.
Operating Temperature		°C	-40		+85	See part numbering guide for options.
Storage Temperature		°C	-40		+125	
Load Capacitance		pF	7		30	See part numbering guide for options.
Shunt Capacitance		pF			5	
Drive Level		µW			100	
Insulation Resistance		MΩ	500			@ 100V _{DC} ± 15V.
Equivalent Series Resistance	3.579MHz ~ 3.999MHz	Ω			200	AT-Cut Fundamental.
	4.000MHz ~ 5.999MHz				150	AT-Cut Fundamental.
	6.000MHz ~ 6.999MHz				100	AT-Cut Fundamental.
	7.000MHz ~ 8.999MHz				80	AT-Cut Fundamental.
	9.000MHz ~ 12.999MHz				60	AT-Cut Fundamental.
	13.000MHz ~ 19.999MHz				50	AT-Cut Fundamental.
	20.000MHz ~ 29.999MHz				30	AT-Cut Fundamental.
	30.000MHz ~ 69.999MHz				100	3 rd Overtone.
70.000MHz ~ 90.000MHz			80	3 rd Overtone.		

OUTLINE DRAWING MARKING



NOTE: Dimensions in millimeters (mm).

ENVIRONMENTAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	MIL-STD-202, Method 213, Condition C
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