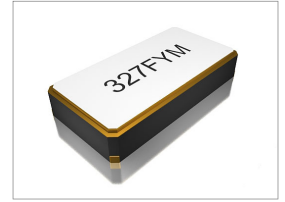


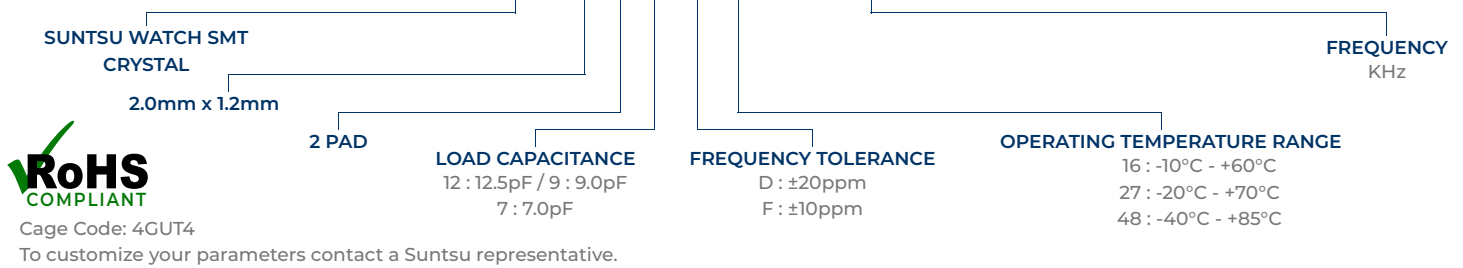
Features
<ul style="list-style-type: none"> <li>±20ppm (Tolerance) Available</li> <li>Ultra-Miniature Package</li> <li>Tape and Reel</li> </ul>

Applications
<ul style="list-style-type: none"> <li>Real Time Clock</li> <li>Measurement instruments</li> <li>Wireless Applications</li> </ul>



### Part Numbering Guide

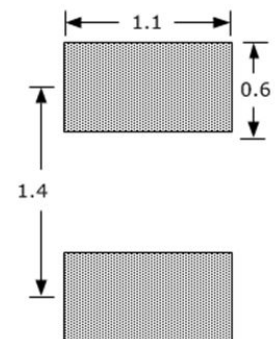
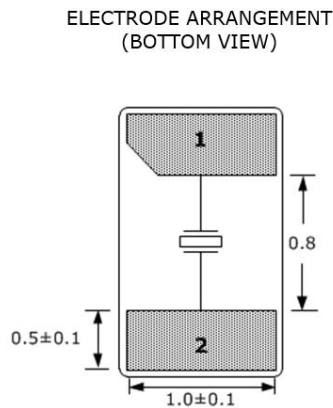
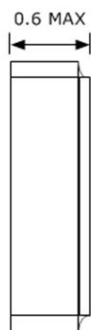
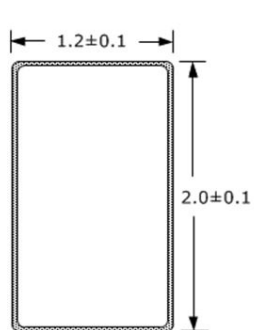
## SWS 21 2 12 D 48 - 32.768KHz



Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	KHz		32.768		
Frequency Tolerance at +25°C	ppm	-20		+20	See part numbering guide for options.
Frequency Stability v's Aging	ppm	-3		+3	First year @ +25°C.
Frequency Coefficient (β)	ppm/T <sup>2</sup>	-0.040	-0.030	-0.020	
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Turnover Temperature	°C	+20	+25	+30	
Storage Temperature	°C	-55		+125	
Load Capacitance	pF			12.5	See part numbering guide for options.
Shunt Capacitance	pF		1.3		
Drive Level	μW			0.5	
Insulation Resistance	MΩ	500			@ 100VDC ± 15V.
Equivalent Series Resistance	kΩ			90	

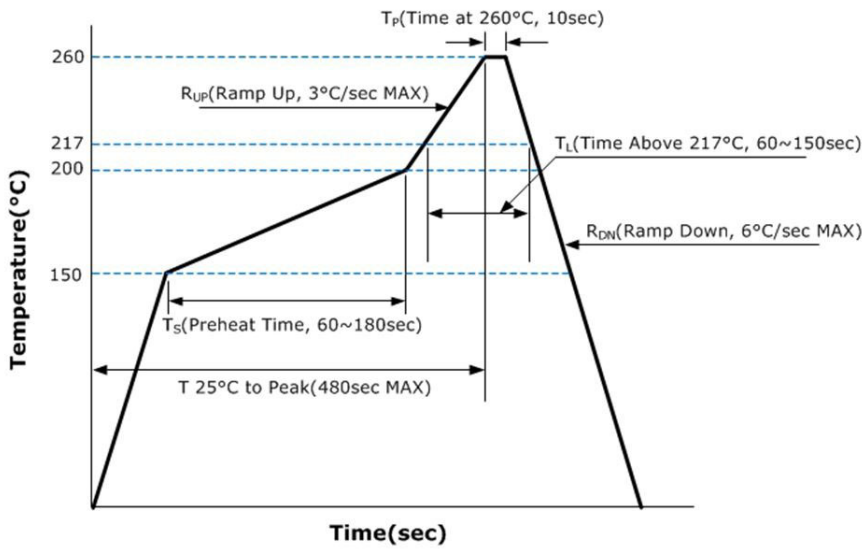
### Outline Drawing & Recommended Land Pattern

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

**Reflow Profile & Part Marking**



Line 1: XXXXX  
 ↑  
 Lot Code

**Tape And Reel Dimensions**

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

3,000pcs / Reel

