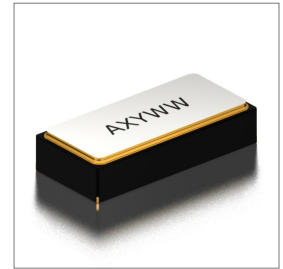


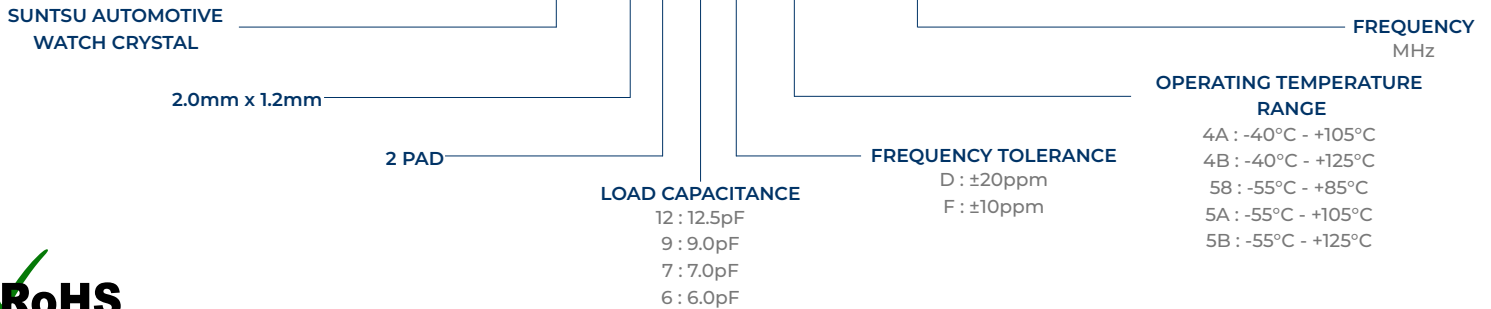
Features
• ±10ppm Tolerance Available
• Ultra-Miniature Package
• High Reliability for Automotive
• Wide Temperature Range Available
• AEC-Q200 Compliant

Applications
• Automotive Electronics
• Infotainment System
• Car Navigation
• ECU Sub Clock



**Part Numbering Guide**

**SAW 21 2 12 D 48 - 32.768K**



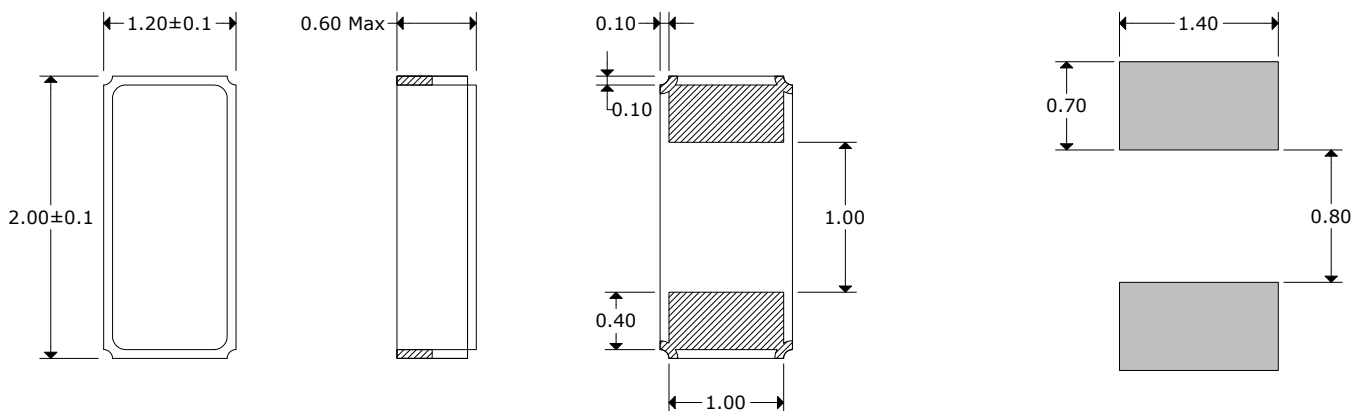
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

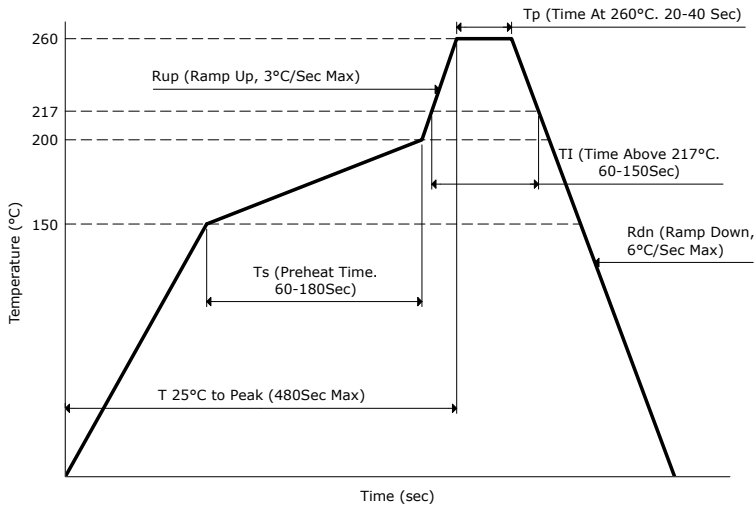
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	KHz		32.768		
Frequency Tolerance at +25°C	ppm	-20		20	See part numbering guide for options.
Frequency Stability vs. Aging	ppm	-3		3	First year @ 25°C
Frequency Coefficient (β)	ppm/T <sup>2</sup>	-0.0224	-0.028	-0.0336	
Operating Temperature	°C	-55		125	See part numbering guide for options.
Turnover Temperature	°C	20	25	30	
Storage Temperature	°C	-55		125	
Load Capacitance	pF	6		12.5	See part numbering guide for options.
Shunt Capacitance	pF		1.3		
Drive Level	μW		0.1	1.0	
Insulation Resistance	MΩ	500			@ 100VDC ± 15V.
Equivalent Series Resistance	kΩ			90	

**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

**Reflow Profile & Part Marking**

**Line 1 : A X Y W W**

Manufacturing Identifier

Load Capacitance

A : 6pF

B : 7pF

J : 9pF

F : 12.5pF

Week

Year

**Tape And Reel Dimensions**

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

3,000pcs / Reel

