

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>- ±20ppm (Tolerance) Available</li> <li>- RoHS Compliant</li> <li>- Low Frequency Tuning Fork</li> <li>- Miniature Package</li> </ul>	<ul style="list-style-type: none"> <li>- Real Time Clock</li> <li>- Measurement instruments</li> <li>- Wireless Applications</li> </ul>



**PART NUMBERING GUIDE**

*SUNTSU TUNING FORK CRYSTAL* → **STF 83 2 B 48 - 48.000kHz** ← *FREQUENCY (kHz)*

*8.3mm x 3.2mm* → **83**

*2 LEAD* → **2**

*OPERATING TEMPERATURE RANGE*  
16: -10°C to + 60°C  
48: -40°C to + 85°C

*FREQUENCY TOLERANCE*  
B: ±30ppm  
D: ±20ppm

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

ELECTRICAL PARAMETERS	UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range	kHz	25.000		200.00	
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>	-0.040	-0.035	-0.030	
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		
Shunt Capacitance	pF		1.5		
Drive Level	μW			1	
Insulation Resistance	MΩ	500			@ 100V <sub>DC</sub> ± 15V.
Equivalent Series Resistance	kΩ			50	

OUTLINE DRAWING	MARKING
<p>NOTE: Dimensions in millimeters (mm).</p>	<p>Line 1: <b>XX.XXX F Y WW</b></p> <p>Frequency in kHz → <b>XX.XXX</b></p> <p>Manufacturing Identifier → <b>F</b></p> <p>Year → <b>Y</b></p> <p>Week → <b>WW</b></p>

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