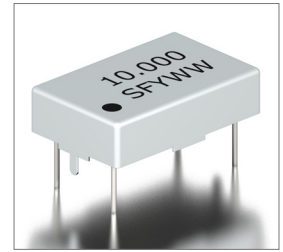
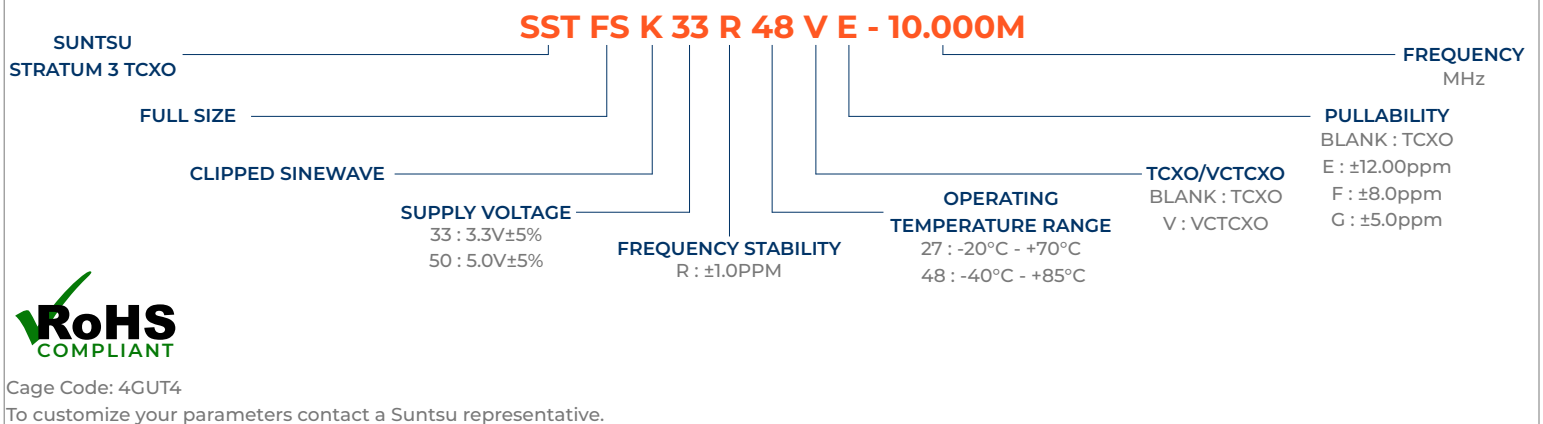


| Features  |
|---|
| <ul style="list-style-type: none"> <li>Stratum 3 (Overall <math>\pm 4.6</math>ppm)</li> <li>Clipped Sinewave</li> <li>(VC)TCXO</li> </ul> |

| Applications   |
|--|
| <ul style="list-style-type: none"> <li>Base Stations</li> <li>Stratum 3</li> </ul> |



**Part Numbering Guide**



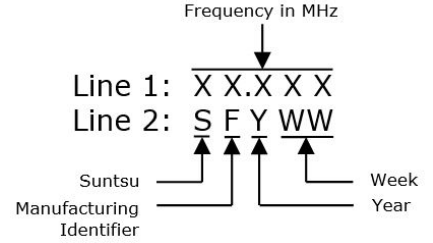
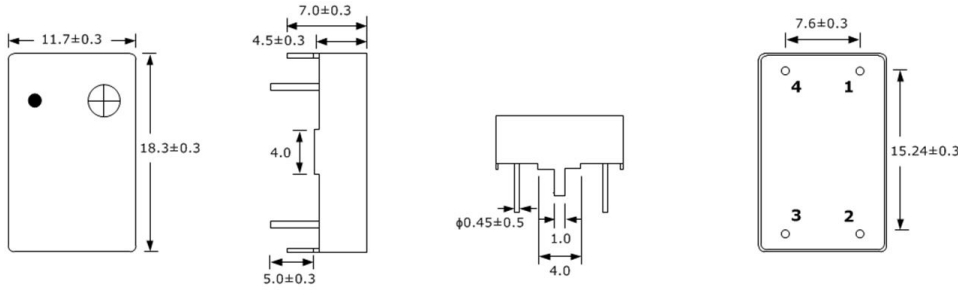
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

| Electrical Parameters                                  | Units            | Minimum   | Typical | Maximum    | Remarks                               |
|--|------------------|-----------|---------|------------|---------------------------------------|
| Frequency Range  | MHz              | 2         |         | 40         |                                       |
| Frequency Tolerance at +25°C                           | ppm              | -0.3      |         | +0.3       |                                       |
| Freq. Stability vs. Op Temp.                           | ppm              | -1.0      |         | +1.0       |                                       |
| Freq. Stability vs. Supply Voltage                     | ppm              | -0.1      |         | +0.1       | V <sub>DD</sub> $\pm$ 5% change.      |
| Freq. Stability vs. Load                               | ppm              | -0.1      |         | +0.1       | $\pm$ 5% change                       |
| Freq. Stability vs. Aging                              | ppm              | -1.0      |         | +1.0       | 1 Year, $\pm 3.1$ ppm for 10 Years    |
| Operating Temperature                                  | °C               | -40       |         | +85        | See part numbering guide for options. |
| Storage Temperature                                    | °C               | -55       |         | +125       |                                       |
| Supply Voltage (V <sub>DD</sub> ) - 3.3V Option        | V                | 3.135     | 3.3     | 3.465      |                                       |
| Supply Voltage (V <sub>DD</sub> ) - 5.0V Option        | V                | 4.750     | 5.0     | 5.250      |                                       |
| Current (I <sub>DD</sub> )                             | mA               |           |         | 20         |                                       |
| Current (VC, VCTCXO) - 3.3V Option                     | V                | 0.3       |         | 3.0        |                                       |
| Current (VC, VCTCXO) - 5.0V Option                     | V                | 0.5       |         | 4.5        |                                       |
| Pullability (VCTCXO)                                   | ppm              | $\pm 5.0$ |         | $\pm 12.0$ | See part numbering guide for options. |
| Linearity (VCTCXO)                                     | %                |           |         | 20         |                                       |
| Output Load (Clipped Sinewave)                         | k $\Omega$ //pF  |           |         | 10//10     |                                       |
| Output Logic Levels                                    | V <sub>P-P</sub> | 0.8       |         |            |                                       |
| Rise (T <sub>R</sub> ) And Fall (T <sub>F</sub> ) Time | ns               |           |         | 10         |                                       |
| Symmetry (Duty Cycle)                                  | %                | 40        | 50      | 60         |                                       |
| Start-Up Time  | ms               |           |         | 3          |                                       |
| Frequency Adjustment                                   | ppm              | 3         |         |            |                                       |
| Phase Noise (Typical) 10Hz Offset                      | dBc/Hz           |           | -80     |            |                                       |
| Phase Noise (Typical) 100Hz Offset                     | dBc/Hz           |           | -120    |            |                                       |
| Phase Noise (Typical) 1KHz Offset                      | dBc/Hz           |           | -135    |            |                                       |
| Phase Noise (Typical) 10KHz Offset                     | dBc/Hz           |           | -140    |            |                                       |
| Phase Noise (Typical) 100KHz Offset                    | dBc/Hz           |           | -145    |            |                                       |

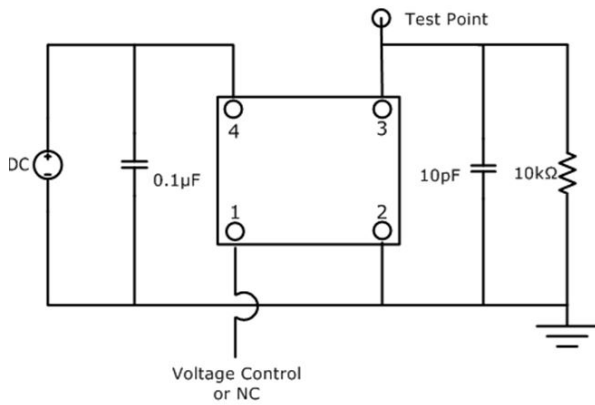
**Outline Drawing & Part Marking**

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

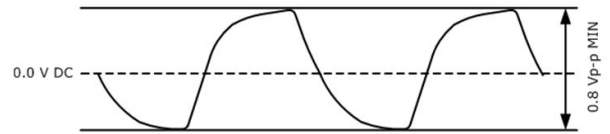


| PIN | FUNCTION                             |
|-----|--------------------------------------|
| 1   | V <sub>c</sub> (VCTCXO) or NC (TCXO) |
| 2   | GND                                  |
| 3   | OUTPUT                               |
| 4   | V <sub>DD</sub>                      |

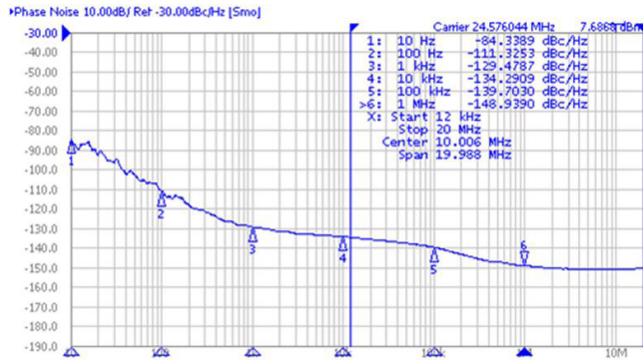
**Test Circuit (Clipped Sinewave)**



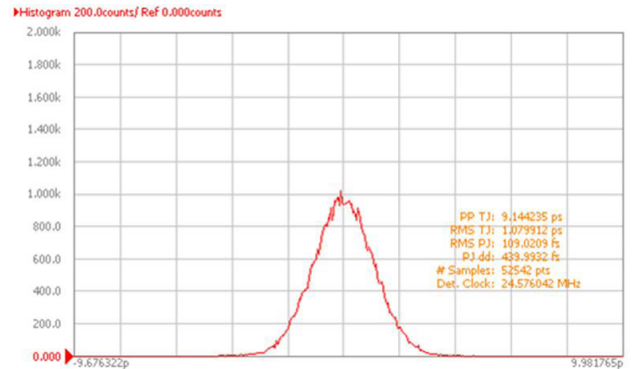
**Waveform (Clipped Sinewave)**



**Typical Phase Noise And Jitter Performance (Measured By Agilent E5052A)**



Frequency - 24.576MHz



Frequency - 24.576MHz

| 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 | Moisture Resistance          | MIL-STD-883, Method 1004              |
| Solderability                | MIL-STD-883, Method 2003              | Resistance to Solvents       | MIL-STD-202, Method 215               |
| Moisture Sensitivity         | J-STD-020, MSL 1                      | Resistance to Soldering Heat | MIL-STD-202, Method 210, Condition K  |