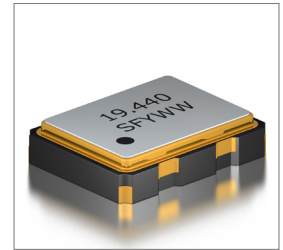
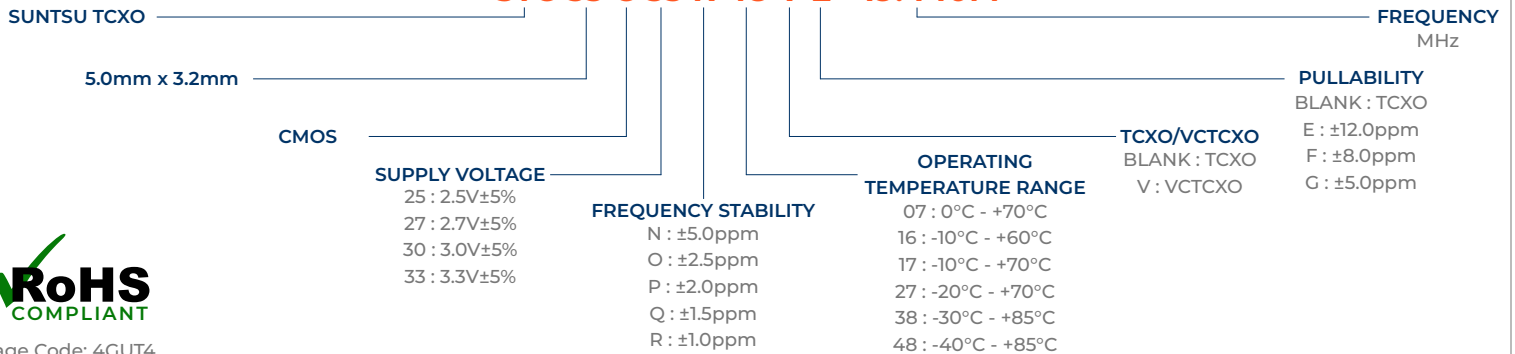


| Features |
|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ±1.0ppm (Frequency Stability) Available CMOS (VC)TCXO Tape and Reel |

| Applications |
|------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> Base Stations IP networking Cellular and Cordless Phones |


Part Numbering Guide
STC 53 C 33 R 48 V E - 19.440M


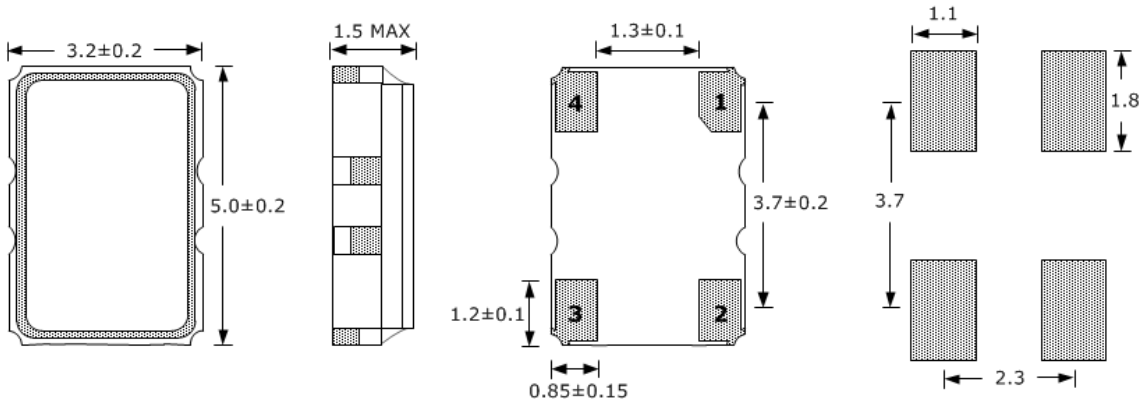
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

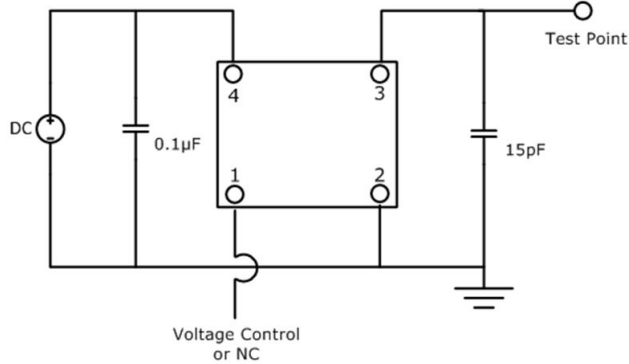
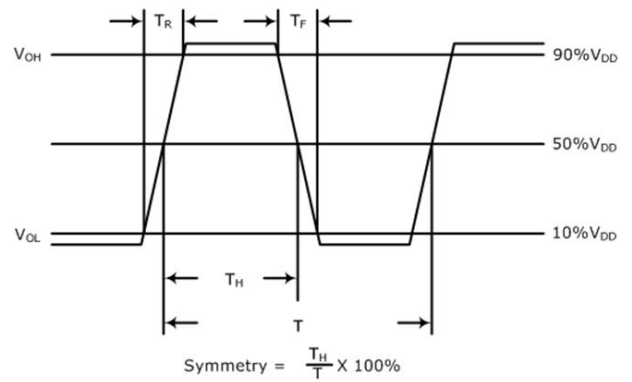
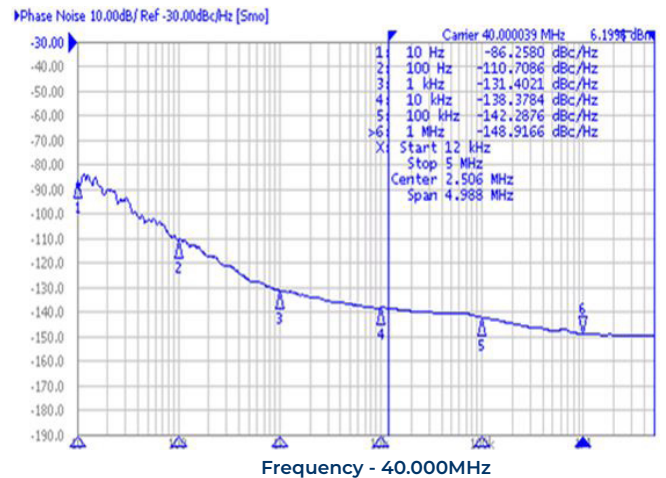
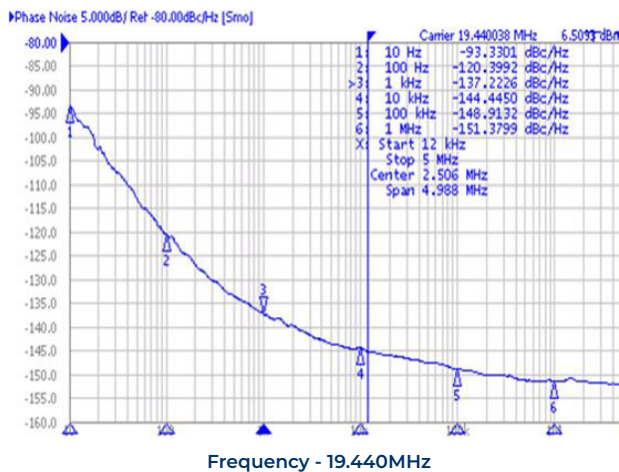
| Electrical Parameters | Units | Minimum | Typical | Maximum | Remarks |
|--------------------------------------------------------|--------|---------------------|---------|---------------------|---------------------------------------|
| Frequency Range | MHz | 6 | | 40 | |
| Frequency Tolerance at +25°C | ppm | -1.5 | | +1.5 | 1 hour after Reflow |
| Freq. Stability vs. Op Temp. | ppm | -1.0 | | +1.0 | See part numbering guide for options. |
| Freq. Stability vs. Supply Voltage | ppm | -0.3 | | +0.3 | V _{DD} ±5% Change |
| Freq. Stability vs. Load | ppm | -0.3 | | +0.3 | ±5% Change |
| Freq. Stability vs. Aging | ppm | -1.0 | | +1.0 | 1 Year |
| Operating Temperature | °C | -40 | | +85 | See part numbering guide for options. |
| Storage Temperature | °C | -55 | | +125 | |
| Supply Voltage (V _{DD}) | V | 3.135 | 3.3 | 3.465 | See part numbering guide for options. |
| Current (I _{DD}) | mA | | | 6 | |
| Current Voltage (VC, VCTCXO) | V | 0 | | V _{DD} | Center Voltage: V _{DD} *50% |
| Pullability (VCTCXO) | ppm | ±5.0 | | ±12.0 | See part numbering guide for options. |
| Linearity (VCTCXO) | % | | | 10 | |
| Output Load (CMOS) | pF | | | 15 | |
| Output Logic HIGH Level (V _{OH}) | V | 0.8*V _{DD} | | | |
| Output Logic LOW Level (V _{OL}) | V | | | 0.2*V _{DD} | |
| Rise (T _R) And Fall (T _F) Time | ns | | | 5 | |
| Symmetry (Duty Cycle) | % | 40 | | 60 | |
| Start-Up Time | ms | | | 3 | |
| VC Input Impedance (VCTCXO) | kΩ | 100 | | | |
| Phase Noise (Typical) 10Hz Offset | dBc/Hz | | -85 | | |
| Phase Noise (Typical) 100Hz Offset | dBc/Hz | | -115 | | |
| Phase Noise (Typical) 1KHz Offset | dBc/Hz | | -135 | | |
| Phase Noise (Typical) 10KHz Offset | dBc/Hz | | -145 | | |
| Phase Noise (Typical) 100KHz Offset | dBc/Hz | | -150 | | |

Outline Drawing & Land Pattern

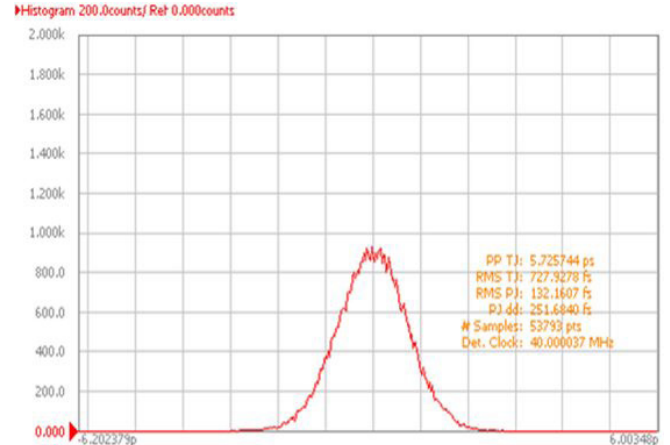
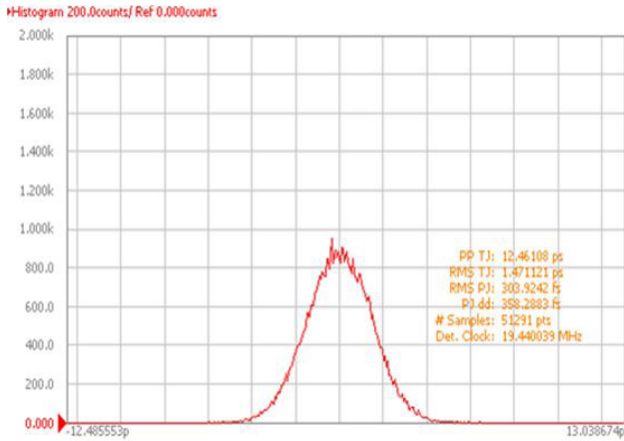
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



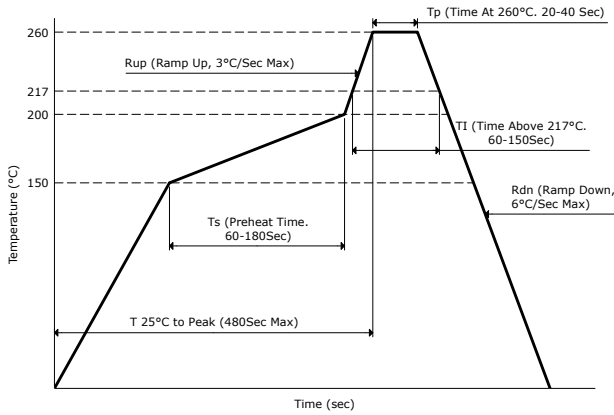
| PIN | FUNCTION |
|-----|---------------------------------------|
| 1 | V _c (VCTCXO) or N/C (TCXO) |
| 2 | GND |
| 3 | OUTPUT |
| 4 | V _{DD} |

Test Circuit (CMOS)

Waveform (CMOS)

Typical Phase Noise Performance (Measured By Agilent E5052A)


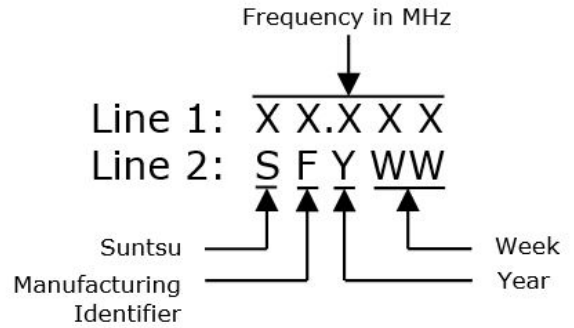
Typical Jitter Performance (Measured By Agilent E5052A)



Reflow Profile



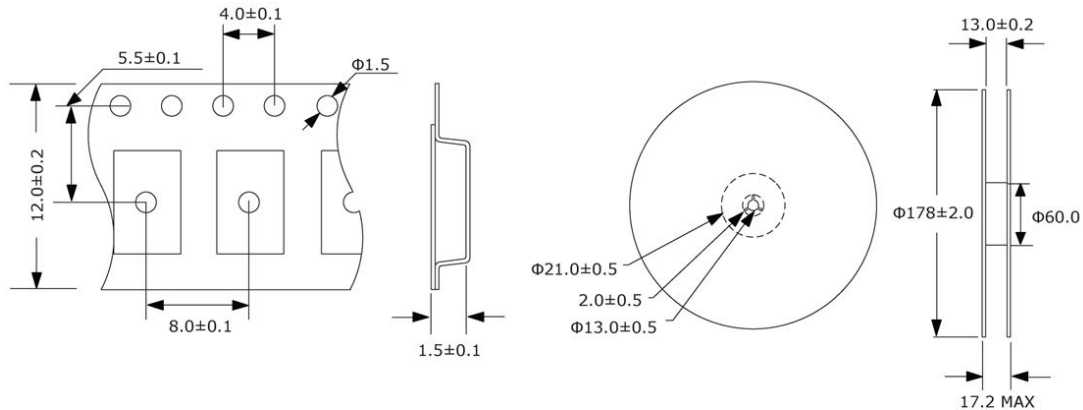
Part Marking



Tape And Reel Dimensions

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

3,000pcs/Reel



| 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 |