

SX5SVTG

CLIPPED SINE WAVE SURFACE MOUNT VCTCXO

FEATURES

5.0 x 3.2 x 1.65 mm

- Miniature package
- High precision for -40° to +85°C , ± 0.20 ppm
- ± 0.05 ppm -10° to +70°C
- Applications: Femtocell, Base stations, Stratum 3, ...



| Item | Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-------------------|---------------|-----------|-----------|-----------|----------|-------------|---|------------|---------------|---------------|---------------|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|
| Frequency Range | 10.0 MHz to 52.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard Frequency | 10.000 ; 12.800 ; 19.200 ; 20.000 ; 26.000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Logic | Clipped Sine Wave | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage Vdd (see options) | +3.3 V ±5% +5.0 V ±5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Current Idd | 3.5 mA max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Tolerance | ±2.0 ppm max. at 25°C ±2°C (one hour after reflow) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Temperature (see options) | <table border="1"> <thead> <tr> <th></th> <th>±0.05 ppm</th> <th>±0.10 ppm</th> <th>±0.20 ppm</th> <th>±0.28 ppm</th> <th>±0.5 ppm</th> </tr> </thead> <tbody> <tr> <td>0° to +50°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-10° to +60°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-20° to +70°C</td> <td>∅</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-40° to +85°C</td> <td>x</td> <td>x</td> <td>∅</td> <td>o</td> <td>o</td> </tr> </tbody> </table> <p>o = available ∅ = please contact us x = not available</p> | | ±0.05 ppm | ±0.10 ppm | ±0.20 ppm | ±0.28 ppm | ±0.5 ppm | 0° to +50°C | o | o | o | o | o | -10° to +60°C | o | o | o | o | o | -20° to +70°C | ∅ | o | o | o | o | -40° to +85°C | x | x | ∅ | o | o |
| | ±0.05 ppm | ±0.10 ppm | ±0.20 ppm | ±0.28 ppm | ±0.5 ppm | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° to +50°C | o | o | o | o | o | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -10° to +60°C | o | o | o | o | o | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -20° to +70°C | ∅ | o | o | o | o | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -40° to +85°C | x | x | ∅ | o | o | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Aging | ±1.0 ppm max. per year at 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Voltage Change | ±0.2 ppm max., for a ±5% input voltage change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Load Change | ±0.2 ppm max., for a ±10% load condition change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Level | ≥0.8 V p-p | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Load | 10 kΩ // 10 pF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase Noise | <table border="1"> <thead> <tr> <th>Offset / dBc / Hz</th> <th>100 Hz</th> <th>1 kHz</th> <th>10 kHz</th> </tr> </thead> <tbody> <tr> <td>(typical)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12.800 MHz</td> <td>-125 dBc / Hz</td> <td>-145 dBc / Hz</td> <td>-150 dBc / Hz</td> </tr> </tbody> </table> | Offset / dBc / Hz | 100 Hz | 1 kHz | 10 kHz | (typical) | | | | 12.800 MHz | -125 dBc / Hz | -145 dBc / Hz | -150 dBc / Hz | | | | | | | | | | | | | | | | | | |
| Offset / dBc / Hz | 100 Hz | 1 kHz | 10 kHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (typical) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.800 MHz | -125 dBc / Hz | -145 dBc / Hz | -150 dBc / Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start-up Time | 2 ms max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage Control Function | Control Voltage Range Center voltage +1.5 V, range ±1.0V Frequency Pulling Range ±5 ppm min. ~ ±10 ppm max. Linearity 10 % max. Slope Polarity Positive Input Impedance 100 kΩ min. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Packing Unit | 1000 pcs / reel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Soldering Condition | 260°C, 10 sec x2 max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Customer specifications on request | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

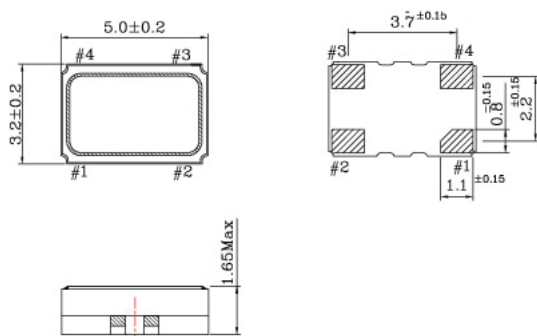
OPTIONS & ORDERING INFORMATION

SX5SVTG

| Supply Voltage * | Operating Temp. * | Temperature Stability * | Tri-state Function | Package type | Pulling | Frequency in MHz |
|-------------------|-------------------------|-------------------------|-------------------------|---------------------------|-------------------------|-------------------------------------|
| 33 = +3.3V | C = 0° / +50°C | 0.05 = ±0.05 ppm | F = No Tri-state | 4P = 4-pad version | 05 = ±5 ppm min. | Please specify the frequency in MHz |
| 50 = +5.0V | D = -10° / +60°C | 0.10 = ±0.10 ppm | | | | |
| | F = -10° / +70°C | 0.20 = ±0.20 ppm | | | | |
| | K = -40° / +85°C | 0.28 = ±0.28 ppm | | | | |
| | | 0.50 = ±0.50 ppm | | | | |

(*) Note : Not all combinations are possible, please consult us.

OUTLINE DIMENSIONS



Pin Connections #1 : Control voltage #2 : GND #3 : Output #4 : Vdd