





#### SX7ST

## CLIPPED SINE WAVE SURFACE MOUNT TCXO

### **FEATURES**

• Miniature package

• Tight stability

- Low power consumption
- Applications: GPS, Mobile phone, WLAN, Base stations, ...

7.0 x 5.0 x 2.0 mm



| Item   | Specification                              |  |            |                          |                              |                  |          |  |  |  |  |
|--|--|--|------------|--------------------------|------------------------------|------------------|----------|--|--|--|--|
| Frequency Range                                    | 5.0 MHz to 52.0 M                          | 5.0 MHz to 52.0 MHz                                |            |                          |                              |                  |          |  |  |  |  |
| Output Logic                                       | Clipped Sine Way                           | Clipped Sine Wave                                  |            |                          |                              |                  |          |  |  |  |  |
| Supply Voltage Vdd (see options)                   | +2.5 V ±5%                                 | +2.8 V ±5%   | +3.0 V ±5% | +3.3 V ±                 | 5%                           |                  |          |  |  |  |  |
| Supply Current Idd                                 | ≤ 15 MHz<br>15 - 26 MHz<br>> 26 MHz        | 1.5 mA max.<br>2.0 mA max.<br>2.5 mA max.          |            |                          |                              |                  |          |  |  |  |  |
| Frequency Tolerance                                | ±2.0 ppm max. at                           | ±2.0 ppm max. at 25°C ±2°C (one hour after reflow) |            |                          |                              |                  |          |  |  |  |  |
| Frequency Stability vs Temperature ( see options ) |  | ±0.5 ppm   | ±1.0 ppm   | ±1.5 ppm                 | ±2.0 ppm                     | ±2.5 ppm         | ±3.0 ppm |  |  |  |  |
|  | -10° to +60°C                              | 0  | 0          | 0                        | 0                            | 0                | 0        |  |  |  |  |
|  | -20° to +70°C                              | 0  | 0          | 0                        | 0                            | 0                | 0        |  |  |  |  |
|  | -30° to +75°C                              | 0  | 0          | 0                        | 0                            | 0                | 0        |  |  |  |  |
|  | -30° to +85°C                              | <b>◊</b>   | O<br>◊     | 0                        | 0                            | 0                | 0        |  |  |  |  |
|  | -40° to +85°C<br>o = availabe              | <b>◊</b>   | -          | 0<br>ontact us           | 0<br><b>v</b> = no           | 0<br>t available | 0        |  |  |  |  |
| 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., fo                          | ±0.2 ppm max., for a ±10% load condition change    |            |                          |                              |                  |          |  |  |  |  |
| Output Level                                       | ≥0.8 V p-p                                 | ≥0.8 V p-p   |            |                          |                              |                  |          |  |  |  |  |
| Output Load  | 10 k $\Omega$ // 10 pF                     |  |            |                          |                              |                  |          |  |  |  |  |
| Phase Noise  | Offset / dBc / Hz<br>(typical)<br>13.0 MHz | 100 Hz   |            | <b>KHZ</b><br>Bc / Hz -1 | <b>10 kHz</b><br>48 dBc / Hz |                  |          |  |  |  |  |
| Start-up Time                                      | 3 ms max.                                  |  |            |                          |                              |                  |          |  |  |  |  |
| Packing Unit                                       | 1000 pcs / reel                            |  |            |                          |                              |                  |          |  |  |  |  |
| Soldering Condition                                | 260°C, 10 sec x2 max                       |  |            |                          |                              |                  |          |  |  |  |  |
|  | Customer specif                            | Customer specifications on request                 |            |                          |                              |                  |          |  |  |  |  |

### **OPTIONS & ORDERING INFORMATION**

| SX7ST |                   |                         |                         |                    |                           | MHz                |
|-------|-------------------|-------------------------|-------------------------|--------------------|---------------------------|--------------------|
|       | Supply Voltage    | Operating Temp. *       | Temperature Stability * | Tri-state Function | Package type              | Frequency in MHz   |
|       | <b>25 =</b> +2.5V | <b>D</b> = -10° / +60°C | <b>0.5 =</b> ±0.5 ppm   | F = No Tri-state   | <b>4P</b> = 4-pad version | Please specify the |
|       | <b>28 =</b> +2.8V | F = -20° / +70°C        | <b>1.0 =</b> ±1.0 ppm   |                    |                           | frequency in MHz   |
|       | <b>30 =</b> +3.0V | <b>G</b> = -30° / +75°C | <b>1.5</b> = ±1.5 ppm   |                    |                           |                    |
|       | <b>33 =</b> +3.3V | <b>H =</b> -30° / +85°C | <b>2.0 =</b> ±2.0 ppm   |                    |                           |                    |
|       |                   | K = -40° / +85°C        | <b>2.5 =</b> ±2.5 ppm   |                    |                           |                    |
|       |                   |                         | <b>3.0 =</b> ±3.0 ppm   |                    |                           |                    |

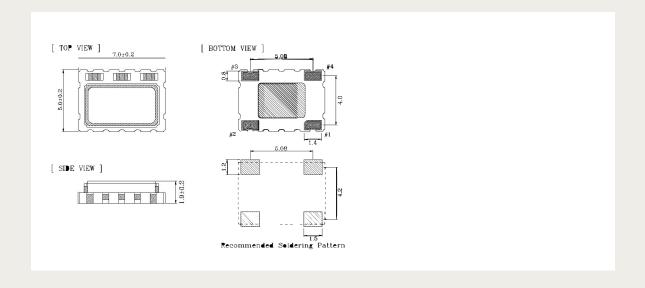
<sup>(\*)</sup> Note : Not all combinations are possible, please consult us.







# **OUTLINE DIMENSIONS**



**Pin Connections** #1 : NC #2 : GND #3: Output #4 : Vdd