

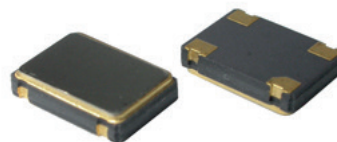
# SX5ST

## CLIPPED SINE WAVE SURFACE MOUNT TCXO

### FEATURES

- Miniature package
- Tight stability
- Many options available
- Applications: GPS, Mobile phone, WLAN, ...

5.0 x 3.2 x 1.3 mm



Item	Specification																																										
Frequency Range	6.4 MHz to 52.0 MHz																																										
Output Logic	Clipped Sine Wave																																										
Supply Voltage V <sub>dd</sub> (see options)	+1.8 V ±5%    +2.5 V ±5%    +2.8 V ±5%    +3.0 V ±5%    +3.3 V ±5%    +5.0 V ±5%																																										
Supply Current I <sub>dd</sub>	≤ 26 MHz    1.5 mA max. > 26 MHz    2.0 mA max.																																										
Frequency Tolerance	±1.0 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>±0.5 ppm</th> <th>±1.0 ppm</th> <th>±1.5 ppm</th> <th>±2.0 ppm</th> <th>±2.5 ppm</th> <th>±3.0 ppm</th> </tr> </thead> <tbody> <tr> <td>-10° to +60°C</td> <td>o</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>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-30° to +75°C</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-30° to +85°C</td> <td>∅</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> <tr> <td>-40° to +85°C</td> <td>∅</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> <td>o</td> </tr> </tbody> </table> <p>o = available    ∅ = please contact us    x = not available</p>		±0.5 ppm	±1.0 ppm	±1.5 ppm	±2.0 ppm	±2.5 ppm	±3.0 ppm	-10° to +60°C	o	o	o	o	o	o	-20° to +70°C	o	o	o	o	o	o	-30° to +75°C	o	o	o	o	o	o	-30° to +85°C	∅	o	o	o	o	o	-40° to +85°C	∅	o	o	o	o	o
	±0.5 ppm	±1.0 ppm	±1.5 ppm	±2.0 ppm	±2.5 ppm	±3.0 ppm																																					
-10° to +60°C	o	o	o	o	o	o																																					
-20° to +70°C	o	o	o	o	o	o																																					
-30° to +75°C	o	o	o	o	o	o																																					
-30° to +85°C	∅	o	o	o	o	o																																					
-40° to +85°C	∅	o	o	o	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>13.0 MHz</td> <td>-115 dBc / Hz</td> <td>-135 dBc / Hz</td> <td>-148 dBc / Hz</td> </tr> </tbody> </table>	Offset / dBc / Hz	100 Hz	1 kHz	10 kHz	(typical)				13.0 MHz	-115 dBc / Hz	-135 dBc / Hz	-148 dBc / Hz																														
Offset / dBc / Hz	100 Hz	1 kHz	10 kHz																																								
(typical)																																											
13.0 MHz	-115 dBc / Hz	-135 dBc / Hz	-148 dBc / Hz																																								
Start-up Time	3 ms max.																																										
Packing Unit	1000 pcs / reel																																										
Soldering Condition	260°C, 10 sec x2 max																																										
	<b>Customer specifications on request</b>																																										

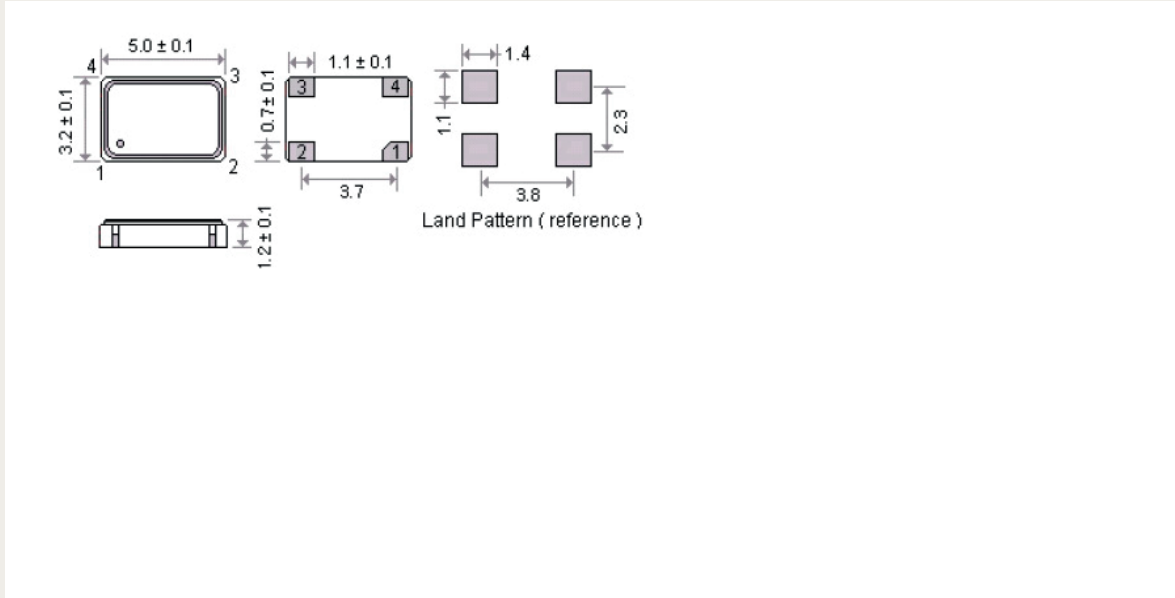
## OPTIONS & ORDERING INFORMATION

### SX5ST

.....	.....	- ..... -	.....	- .....	..... MHz
Supply Voltage *	Operating Temp. *	Temperature Stability *	Tri-state Function	Package type	Frequency in MHz
18 = +1.8V	D = -10° / +60°C	0.5 = ±0.5 ppm	F = No Tri-state	4P = 4-pad version	Please specify the frequency in MHz
25 = +2.5V	F = -20° / +70°C	1.0 = ±1.0 ppm			
28 = +2.8V	G = -30° / +75°C	1.5 = ±1.5 ppm			
30 = +3.0V	H = -30° / +85°C	2.0 = ±2.0 ppm			
33 = +3.3V	K = -40° / +85°C	2.5 = ±2.5 ppm			
50 = +5.0V		3.0 = ±3.0 ppm			

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

## OUTLINE DIMENSIONS



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