





SX7CTQ

HCMOS SURFACE MOUNT TEMPERATURE COMPENSATED CRYSTAL CLOCK OSCILLATOR

FEATURES

- FR4 based package
- Low current consumption
- Low jitter

 $7.0 \times 5.0 \times 2.5 \text{ mm}$



| Item | Specification | | | | | |
|---|---|----------------------|-----------------------------|---------------------------------|----------|----------|
| Frequency Range | 10 MHz ~ 245.0 MHz | | | | | |
| Output Signal | CMOS | | | | | |
| Supply Voltage Vdd | +2.5V ±5% | | 4 | +3.3V ±5% | | |
| Supply Current Idd | 30.0 mA max , Frequency dependent | | | | | |
| Frequency Tolerance | ±2.0 ppm at 25°C ±2°C (one hour after reflow) | | | | | |
| Frequency Stability vs Temperature (see options) | -20° to +70°C -30° to +75°C -30° to +85°C -40° to +85°C O = available | ±0.5 ppm ○ ○ ○ ◇ ◇ | ±1.0 ppm O O O O Stuss X = | ±1.5 ppm O O O O not available | ±2.0 ppm | ±2.5 ppm |
| 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., fc | ora ±10% load cond | lition change | | | |
| Output Level | VOH ≥ 0.9 Vdd | | | VOL ≤ 0.1 Vdd | | |
| Output Load | 15 pF | | | | | |
| Symmetry | 45 / 55 % | | | | | |
| Rise / Fall time Fr/Ff | 3.0 ns max. | | | | | |
| Tri-state function (only available for 6-pad) | pin #2 = high or o | open | | oin #4 ==> os | | |
| Start-up Time | 5 ms max. | | | | | |
| Integrated Phase Jitter (12 kHz to 20 MHz band) | 0.8 ps typical | | | | | |
| Packing Unit | 1000pcs / reel | | | | | |
| Soldering Condition | 260°C , 10 sec ×2 r | nax | | | | |

Customer specifications on request





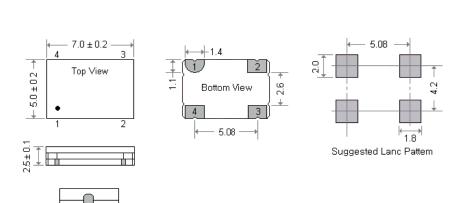


OPTIONS & ORDERING INFORMATION

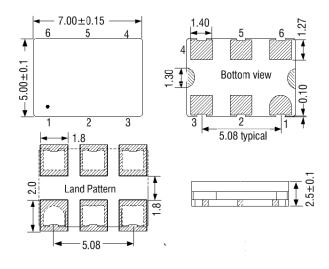
| SX7CTQ | | | | | | MHz |
|--------|------------------|-------------------|------------------------------|-----------------------------|--------------------|-------------------------------------|
| | Supply Voltage * | Operating Temp. * | Temperature Stabil- ity * | Tri-state Function | Package type | Frequency in MHz |
| | 25 = +2.5V | F = -20° / +70°C | 0.5 = ±0.5 ppm | F = No Tri-state (4-pad) | 4P = 4-pad version | Please specify the frequency in MHz |
| | 33 = +3.3V | G = -30° / +75°C | 1.0 = ±1.0 ppm | E2 = Tri-state , pin 2 | 6P = 6-pad version | |
| | | H = -30° / +85°C | $1.5 = \pm 1.5 \text{ ppm}$ | | | |
| | | K = -40° / +85°C | $2.0 = \pm 2.0 \text{ ppm}$ | | | |
| | | | 2.5 = ±2.5 ppm | | | |

 $[\]ensuremath{^{*}}\xspace$ Note : Not all combinations are possible , please consult us.

OUTLINE DIMENSIONS (MM)



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



| Pin Connections |
|-----------------|
| #I:NC |
| #2 : E/D |
| #3: GND |
| #4 : Output |
| #5 : NC |
| #6 :Vdd |
| |