





# SX2KTF

# 32.768 KHZ SURFACE MOUNT TCXO

### **FEATURES**

- Miniature package
- Ultra Low μA Current
- Tuning Fork design
- Workable Vdd range 1.6V to 3.3V
- Applications: battery-operated devices, smart metering,...



Item     Specification       Frequency Range     32.768 kHz						
Frequency Range 32.768 kHz						
Output Signal CMOS						
Supply Voltage Vdd +1.6V ±5% +1.8V ±5% +2.5V ±5% +3.0V ±5% +3.3V ±5%						
Supply Current Idd I.0 μA typ., 2.0 μA max	I.0 μA typ., 2.0 μA max					
Frequency Tolerance ±2.5 ppm at 25°C ±2°C ( one hour after reflow )	±2.5 ppm at 25°C ±2°C ( one hour after reflow )					
Frequency Stability vs Temperature (see options)  -10° to +60°C						
Time Error over time ( ±5ppm -40°to +85°C ) ±0.432 sec/day ; ±12.96 sec/month ; ±2.628 minutes /year						
requency Stability vs Aging ±3.0 ppm max. per year at 25°C						
Frequency Stability vs Voltage Change ±0.2 ppm max., for a ±5% input voltage change						
quency Stability vs Load Change ±0.2ppm max., for a ±10% load condition change						
Frequency Stability vs all range of Vdd $\pm 1.0$ ppm / volt max $\pm 0.5$ ppm / volt typ.	ofVdd ±1.0 ppm / volt max ±0.5 ppm / volt typ.					
Output Level VOH ≥ 0.9 Vdd VOL ≤ 0.1 Vdd	VOH ≥ 0.9 Vdd VOL ≤ 0.1 Vdd					
Output Load 15 pF	15 pF					
Symmetry 40 / 60 %						
Rise / Fall time Fr/Ff 100 ns max.						
Tri-state function  pin #1 = high or open pin #3 ==> oscillation pin #3 ==> high impedance						
Packing Unit 1000pcs / reel						
Soldering Condition 260°C , 10 sec x2 max						







### **OPTIONS & ORDERING INFORMATION**

SX2KTF					32.768 kHz
	Supply Voltage *	Operating Temp. *	Temperature Stability *	Tri-state Function	Frequency in kHz
	16 = +1.6V	D = -10° / +60°C	$3.8 = \pm 3.8 \text{ ppm}$	E = Tri-state	
	18 = +1.8V	K =-40° / +85°C	$5.0 = \pm 5.0 \text{ ppm}$		
	25 = +2.5V	L = -40° / +105°C	$8.0 = \pm 8.0 \text{ ppm}$		
	30 = +3.0V				
	33 = +3.3V				

<sup>\*</sup> Note : Not all combinations are possible , please check data sheet.

## OUTLINE DIMENSIONS (MM)

