

**SX2KL**

**32.768 kHz SURFACE MOUNT CLOCK OSCILLATOR**

**FEATURES**

- Ultra-miniature package
- AT-cut crystal built-in
- Low power consumption of 65 µA (typ.)
- Supply voltage as wide as +1.8V to 5.0V
- Applications : Portable electronics , ....

2.5 x 2.0 x 0.9 mm



Item	Specification
Frequency Range	32.768 kHz
Output Logic	CMOS
Overall Frequency Stability *	$\pm 20$ ppm typ . $\sim \pm 25$ ppm max
Operating Temperature Range	-40°C to +85°C
Supply Voltage Vdd	+1.8V $\pm 5\%$ +2.5V $\pm 5\%$ +3.0V $\pm 5\%$ +3.3V $\pm 5\%$ +5.0V $\pm 5\%$
Supply Current Idd	65 µA typ
Output Level	VOH $\geq 0.9$ Vdd                      VOL $\leq 0.1$ Vdd
Output Load	30 pF
Symmetry	45 / 55 %
Rise Time / Fall Time Fr/Ff	12 ns max
Tri-state function	pin #1 = high or open                      pin #3 ==> oscillation pin #1 = low                                      pin #3 ==> high impedance
Start-up Time	1 ms max.
Packing Unit	3000pcs / reel
Soldering Condition	260°C , 10 sec x2 max

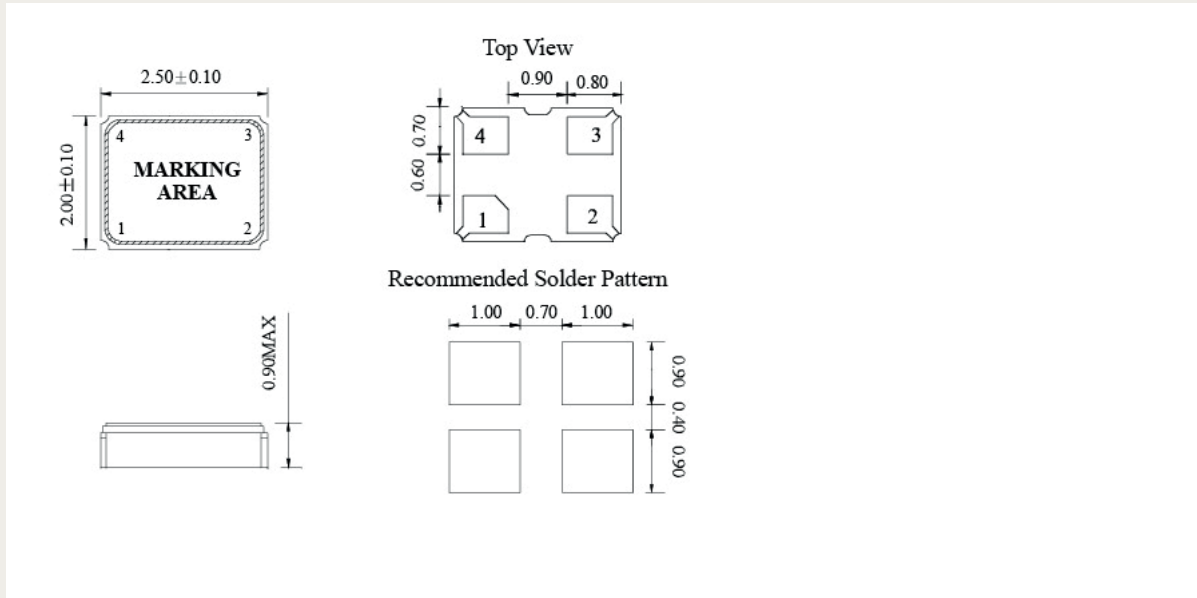
**Customer specifications on request**

(\*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

**OPTIONS & ORDERING INFORMATION**

SX2KL .....	.....	.....	.....	.....	.....	32.768 kHz
Supply Voltage	Operating Temp.	Overall Stability	Tri-state Function	Output Load	Frequency in kHz	
<b>18</b> = +1.8V	<b>K</b> = -40° / +85°C	<b>20</b> = $\pm 20$ ppm	<b>E</b> = Tri-state	<b>H</b> = 30 pF		
<b>25</b> = +2.58V		<b>25</b> = $\pm 25$ ppm				
<b>30</b> = +3.0V		<b>30</b> = $\pm 30$ ppm				
<b>33</b> = +3.3V						
<b>50</b> = +5.0V						

## OUTLINE DIMENSIONS



Pin Connections

#1 : E/D

#2 : GND

#3 : Output

#4 : Vdd