

**SX5KL**

**32.768 kHz SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR**

**FEATURES**

- High Stability
- AT-cut crystal built-in
- Low power consumption of 65  $\mu$ A (typ.)
- Supply voltage as wide as +1.8V to 5.0V
- Applications: Portable electronics, ....

5.0 x 3.2 x 1.3 mm



Item	Specification
Frequency Range	32.768 kHz
Output Logic	CMOS
Overall Frequency Stability *	$\pm 20$ ppm typ . ~ $\pm 25$ ppm max
Operating Temperature Range	-40 ~ +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 $\mu$ A 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**

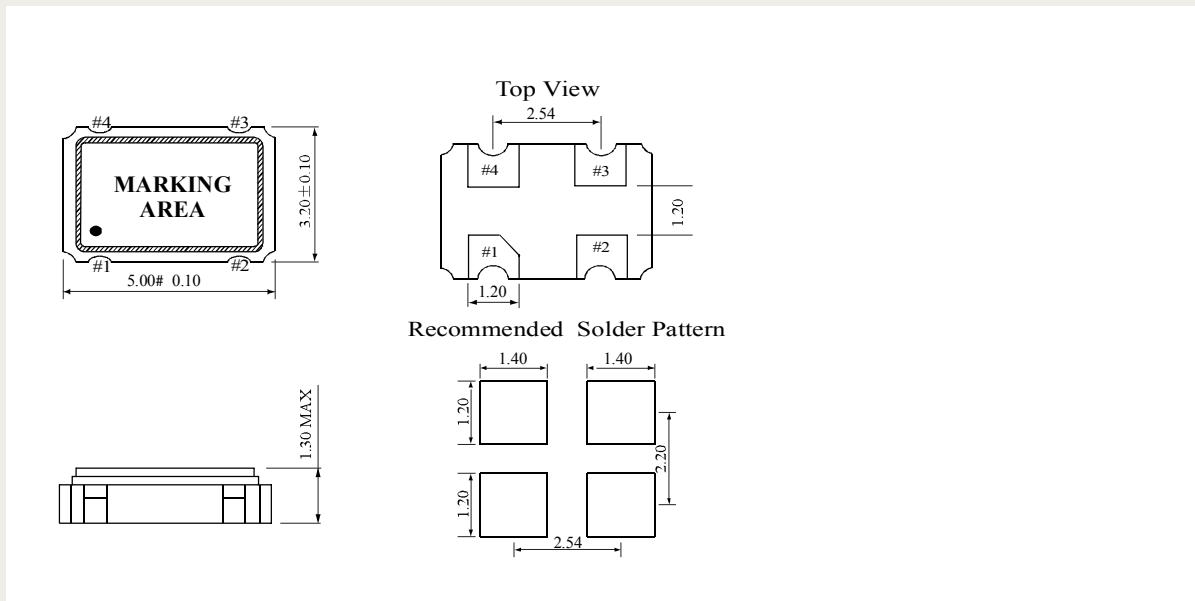
(\*) Includes initial tolerance @+25°C , stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

**OPTIONS & ORDERING INFORMATION**

SX5KL	Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Output Load *	Frequency in kHz
.....	<b>18</b> = +1.8V <b>25</b> = +2.5V <b>30</b> = +3.0V <b>33</b> = +3.3V <b>50</b> = +5.0V	<b>K</b> = -40° / +85°C	<b>20</b> = $\pm 20$ ppm <b>25</b> = $\pm 25$ ppm <b>30</b> = $\pm 30$ ppm	<b>E</b> = Tri-state	<b>H</b> = 30 pF	32.768 kHz

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

# OUTLINE DIMENSIONS



Pin Connections	#1 : E/D	#2 : GND	#3 : Output	#4 : Vdd
-----------------	----------	----------	-------------	----------