

#### European Crystal Organization

Frequency Technology

KLOVE ELECTRONICS

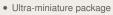
Frequency Technology

SX2K

# 32.768 kHz SURFACE MOUNT CLOCK OSCILLATOR

### **FEATURES**

2.5 x 2.0 x 0.9 mm



- AT-cut crystal built-in
- $\bullet$  Low power consumption of 10  $\mu A$  max
- Supply voltage as wide as +1.8V to 3.3V
- Applications : Portable electronics , ....



Item	Specification					
Frequency Range	32.768 kHz					
Output Logic	CMOS					
Overall Frequency Stability *	± 20 ppm typ. ~ ± 50 ppm (see options)					
Operating Temperature Range	-40°C to +85°C					
Supply Voltage Vdd	+1.8V ±5% +2.5V ±5%	+3.0V ±5%	+3.3V ±5%			
Supply Current Idd	10 μA max.					
Output Level	VOH ≥ 0.9 Vdd	VOL ≤ 0.1 Vdd				
Output Load	15 pF					
Symmetry	45 / 55 %					
Rise Time / Fall Time Fr/Ff	7 ns typ., 20 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 typ.					
Packing Unit	1000pcs / reel					
Soldering Condition	260°C, 10 sec x2 max					
	Customer enecifications on requi	ost				

**Customer specifications on request** 

### **OPTIONS & ORDERING INFORMATION**

SX2K					32.768 kHz
	Supply Voltage	Operating Temp.	Overall Stability	Tri-state Function	Frequency in kHz
	<b>18 =</b> +1.8V	K = -40° / +85°C	<b>20</b> = ±20 ppm	E = Tri-state	
	<b>25 =</b> +2.50V		<b>25</b> = ±25 ppm		
	<b>30 =</b> +3.0V		<b>30</b> = ±30 ppm		
	<b>33 =</b> +3.3V		<b>50</b> = ±50 ppm		

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

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# **OUTLINE DIMENSIONS**

