温补振荡器 Temperature Compensated Crystal Oscillator: KT3225

Feature 特征

- Compact 3.2x2.5mm SMD package with fixed frequency 32.768kHZ CMOS output 小尺寸贴片温补晶振频率为 32.768kHz，输出波形为 CMOS
- Excellent frequency stability up to ±5ppm max 频率稳定性好，最大±5ppm
- Ultra-low current consumption ideal for battery-powered devise 超低电流消耗，适合电池供电应用
- Ideal for real-time clock, wearable, IoT, and portable electronics 广泛应用实时时钟，可穿戴设备，物联网，及便携式电子产品

General Specifications 规格参考

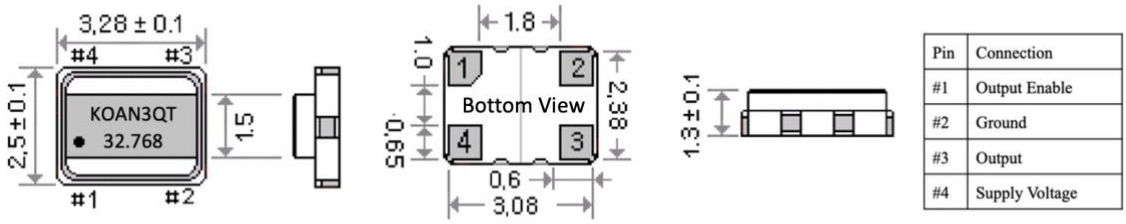
PARAMETER	性能参数	KT3225
Supply Voltage	工作电压	+1.8V; +2.5V; +3.0V; +3.3V; +5.0V
Frequency Range	频率范围	32.768kHz
Output Logic	输出波形	CMOS
Output Load	输出负载	15pF
Output Logic High '1' Output Logic Low '0'	输出电平 高 输出电平 低	VDD-0.4V min; IOH=0.1mA 0.4V max; IOL=-0.1mA
Initial Calibration Tolerance	调整频差	±1.5ppm max.
Current Consumption	工作电流	5mA max.
Frequency Stability 频率温度稳定度 VS		
Operating Temperature Range	温度范围	见下表
Frequency Stability	温度频差	
Aging	年老化率	±3.0ppm/year max
Voltage Change	电压变化	±0.2ppm max for ±5% input voltage change
Load Change	负载变化	±0.2ppm max for ±10% load condition change
Reflow	回流焊	±1.0ppm max. 1 reflow and measured 24hs afterwards
Duty Cycle	占空比	45~55%
Rise & Fall Time	上升下降时间	100ns max.
Start-up Time	起振时间	30ms max.
Storage Temperature Range	储存温度范围	-55°C ~ +125°C

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围							
Temp. Code	Temp.\ppm	±0.5	±1.0	±2.0	±2.5	±3.0	±5.0
A	-10~60°C	○	○	○	○	○	○
B	-20~70°C	○	○	○	○	○	○
C	-40~85°C		○	○	○	○	○

NOTE: Please consult for other specifications 若有其它规格需求请告知

Outline Dimensions (Unit: mm) 外形尺寸

KT3225

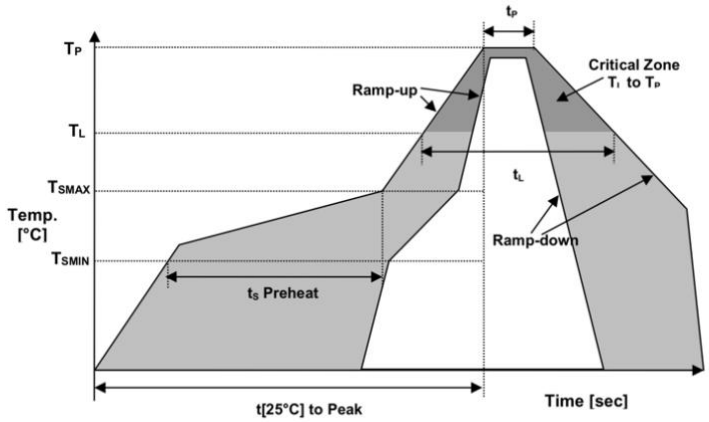


Pin	Connection
#1	Output Enable
#2	Ground
#3	Output
#4	Supply Voltage

Part Number Guide 产品编号

KT3225	-	32.768	-	33	-	C	-	03	-	NS
↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
'KT':温补系列 KT: TCXO **'3225':**封装尺寸 3.2x2.5mm		(In kHz)		18=1.8V 25=2.5V 30=3.0V 33=3.3V 50=5.0V		A: -10~+60°C B: -20~+70°C C: -40~+85°C		A5 = ±0.5ppm 01 = ±1.0ppm 02 = ±2.0ppm 025 = ±2.5ppm 03 = ±3.0ppm 05 = ±5.0ppm		'**NS**':特殊要求

Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	T_{smin}	150°C
Temperature Max preheat	最高预热温度	T_{smax}	200°C
Time (T_{smin} *to* T_{smax})	时间差	T_s	60~120 sec
Temperature	温度	T_L	217°C
Peak Temperature	最高温	T_p	260 °C
Ramp-up Rate	升温速度	R_{up}	3°C/sec max
Ramp-down Rate	降温速度	R_{down}	6°C/sec max
Time within 5°C of Peak Temperature	最高温度停留时间	t_p	30 sec
Time t[25°C] to peak temperature	25度到最高温度时间	t[25°C] to peak	480 sec
Time	时间	t_L	60~150 sec