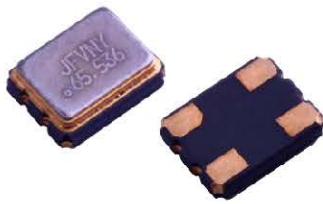


XO32



Description:

- Optional ED Control Function
- HCMOS Output
- Small Volume
- Dribbling Packaging
- Green Product
- Industrial Control
- Communications Network
- Automotive Electronics
- Instruments and Apparatus
- Military Equipment

Performance Characteristics

Parameter		Condition	XO32		
Frequency Range (MHz)	F <sub>0</sub>		32.768KHz~125.000MHz		
Frequency Tolerance	F <sub>tol</sub>	AT 25°C	±25 ppm		
Temperature Range	T <sub>OPR</sub>		See Table Below		
Supply Voltage (V)	V <sub>DD</sub>	+/-10%	+3.3	+2.5	+1.8
Supply Current (mA)	I <sub>DD</sub>	32.768KHz	2 Max	2 Max	1 Max
		1M≤F <sub>0</sub> <40M	15 Max	10 Max	10 Max
		40M≤F <sub>0</sub> <70M	20 Max	15 Max	15 Max
		70M≤F <sub>0</sub> <125M	30 Max	20 Max	—
Standby Current		E/D=GND	10 μA Max		
Output Waveform			CMOS		
Output Load			15pF		
E/D Control Function	E/D		Y: Fixed frequency, Have E / D Control		
Output Symmetry	SYM	1.4V or 1/2V <sub>DD</sub>	45%~55%		
Rise time/Fall time	Tr/Tf	32.768K≤F <sub>0</sub> <1M	50nS Max.		
		1M≤F <sub>0</sub> ≤125M	5nS Max.		
Fall Times	RMS	12KHz~20MHz	1.0pS Max.		
Output Level	"0"	V <sub>OL</sub>	10%V <sub>DD</sub>		
	"1"	V <sub>OH</sub>	90%V <sub>DD</sub>		
Start-Up Time	Ts		<30mS (32.768K≤F <sub>0</sub> <1M); <10mS (1M≤F <sub>0</sub> ≤125M)		
Frequency Aging	F <sub>age</sub>	25°C±3°C	±3×10 <sup>-6</sup> /Year Max.		
Storage Temperature	T <sub>stg</sub>		-55°C~+125°C		

Frequency Temperature Stability Table

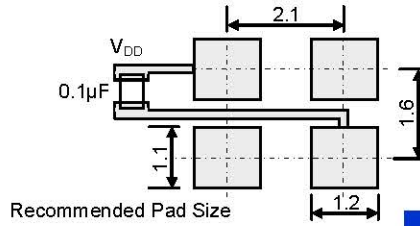
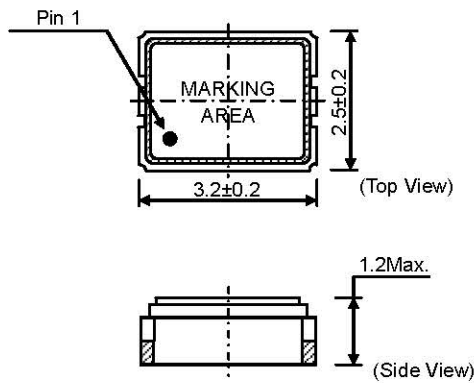
Temperature Range	Frequency Stability			
	Q:±20×10 <sup>-6</sup>	R:±25×10 <sup>-6</sup>	T:±50×10 <sup>-6</sup>	U:±100×10 <sup>-6</sup>
C: -20°C ~ +70°C	●	●	●	●
ΔG: -40°C ~ +85°C		●	●	●
∇Q: -40°C ~ +125°C			●	●
★H: -55°C ~ +85°C			◎	◎
★J: -55°C ~ +125°C			◎	◎

●: Optional ◎: Customized Δ: Industrial ∇: Automotive ★: Military Products

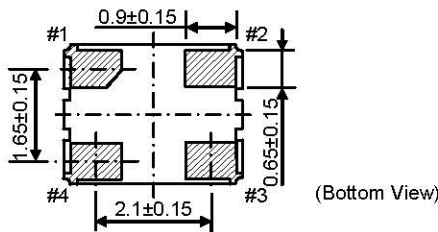
Note: for those not marked in the selection table of frequency and temperature stability, please communicate with us for confirmation

XO32

Outline Size (mm)

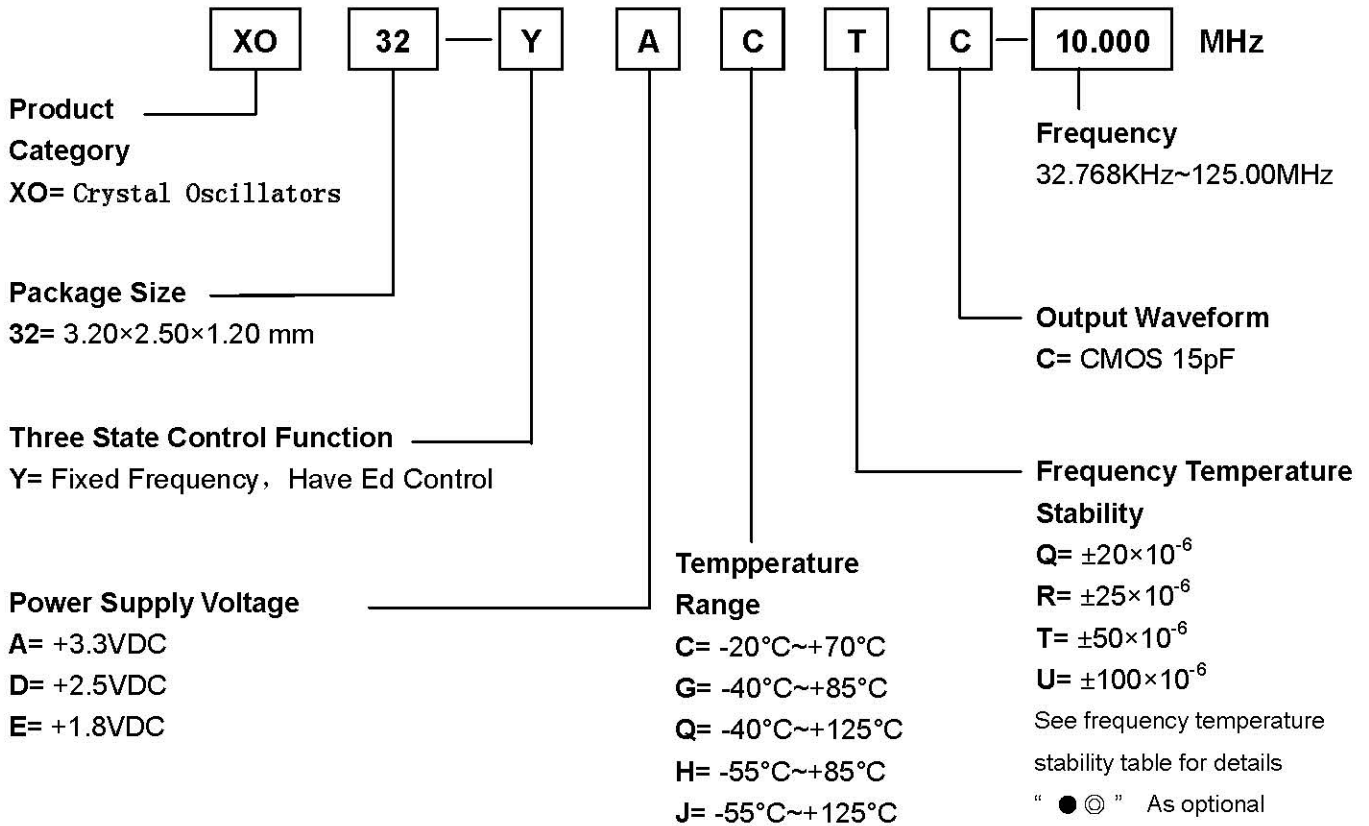


Pin	Function
#1	E/D Dangling
#2	Ground
#3	Output
#4	Power



E/D 功能说明	
#1	#3
High Level (70%VDD Min.) Or Open Circuit	Start Up
Low Level (30%VDD Max.) Or Ground	High Resistivity State

Selection Guide



Sample Selection

XO32-YACTC-10MHz

Crystal Oscillators / Fixed frequency, Have E/D Control / +3.3VDC / -20°C~+70°C / ±50×10<sup>-6</sup> / CMOS 15pF / 10.000MHz