

Surface Mount Watch Crystal



The XT32P is a cylinder type watch crystal molded in a thermoplastic housing capable of withstanding soldering re-flow processing. The XT32P is perfect for your SMD applications using the 32.768 KHz frequency. We offer two different footprints of the part to satisfy various pattern layout requirements.

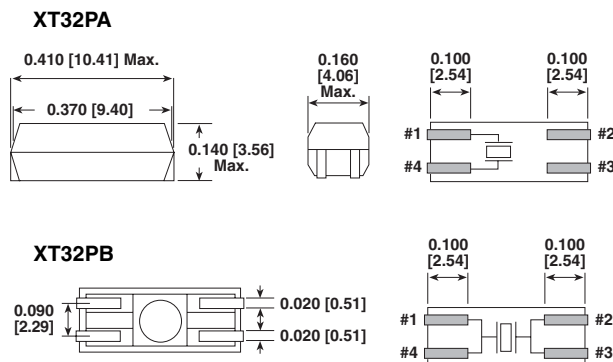
FEATURES

- Low profile
- Industry standard footprint
- Long term stability
- Tape and reel, 2000pcs
- 100 % Lead (Pb)-free and RoHS compliant

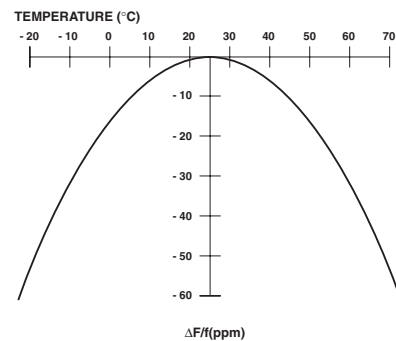


STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	F _O		KHz		32.768	
Frequency Tolerance	ΔF/F _O	at 25 °C	ppm	-20		+20
Frequency Coefficient	K	parabolic coefficient	ppm/°C ²	-0.027	-0.035	-0.043
Operating Temperature Range	T _{OPR}		°C	-40		+85
Storing Temperature Range	T _{STG}		°C	-55		+125
Shunt Capacitance	C _O		pF		1.0	
Motional Capacitance	C ₁		fF		2.0	4
Load Capacitance	CL		pF		12.5	
Insulation Resistance	IR		MΩ	500		
Drive Level	DL		μW			1.0
Aging (first year)	Fa	at 25 °C ± 3 °C	ppm		±3.0	
Equivalent Series Resistance(ESR)	Rs		KΩ			50

DIMENSIONS in inches [millimeters]



PARABOLIC TEMPERATURE CURVE



To determine frequency stability, use parabolic curvature (k).
For example: What is stability at 45 °C?

- 1) Change in Temperature (°C) = 45 - 25 = 20 °C
- 2) Change in Frequency = - 0.042 ppm*(Δ°C)
= - 0.042 ppm*(20)²
= - 16.8 ppm(max)

ORDERING INFORMATION

XT32P MODEL	A PAD LAYOUT A or B	32.768 KHz FREQUENCY /KHz	e6 JEDEC Lead (Pb)- Free STANDARD
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GLOBAL PART NUMBER

