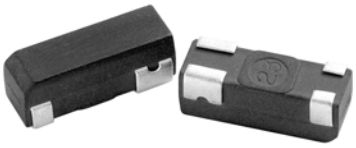
Surface Mount Watch Crystal



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

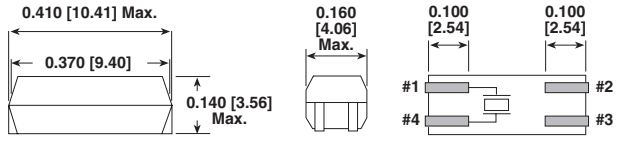
Pb-free
RoHS COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

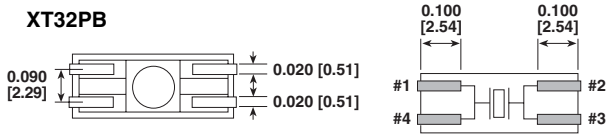
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	F_O		KHz		32.768	
Frequency Tolerance	$\Delta F/F_O$	at 25 °C	ppm	-20		+20
Frequency Coefficient	K	parabolic coefficient	ppm/°C^2	-0.027	-0.035	-0.043
Operating Temperature Range	T_{OPR}		°C	-40		+85
Storing Temperature Range	T_{STG}		°C	-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]

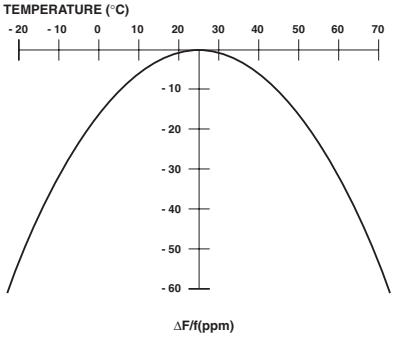
XT32PA



XT32PB



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	**A**	**32.768 KHz**	**e6**
MODEL	PAD LAYOUT A or B	FREQUENCY /KHz	JEDEC Lead (Pb)-Free STANDARD

GLOBAL PART NUMBER

X	T	3	2	P	A	A	3	2	K	7	6	8
MODEL					PAD LAYOUT	PACKAGE CODE	FREQUENCY					