Tuning Fork Crystal

FEATURES

- Miniature package
- Low cost
- KHz frequency
- Tight tolerance
- 100 % Lead (Pb)-free and RoHS compliant

Pb-free

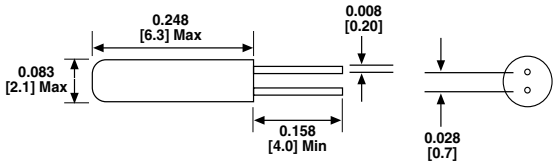
RoHS
COMPLIANT

The tuning fork type quartz crystal provides ultimate in size, performance and economic trade-offs. So it is used as a clock source in communication equipment, measuring instrument, microprocessor and other time management applications.

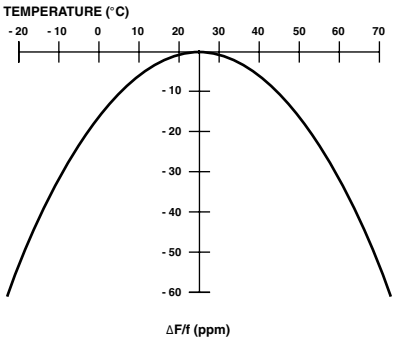
STANDARD ELECTRICAL SPECIFICATIONS

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	
Frequency Coefficient	K	ref to 25 °C	ppm/(Δ°C)^2			- 0.042
Operating Temperature Range	T_{OPR}		°C	- 10		+ 60
Storing Temperature Range	T_{STG}		°C	- 20		+ 70
Shunt Capacitance	C_O		pF		0.85	2
Motional Capacitance	C_1		fF	1	2	4
Load Capacitance	CL		pF		12.5	
Insulation Resistance	IR	100 V_{DC}	MΩ	500		
Drive Level	DL		µW			1
Aging (first year)	Fa	at 25 °C ± 3 °C	ppm	- 5.0		+ 5.0
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)^2
= - 0.042 ppm*(20)^2
= - 16.8 ppm (max)

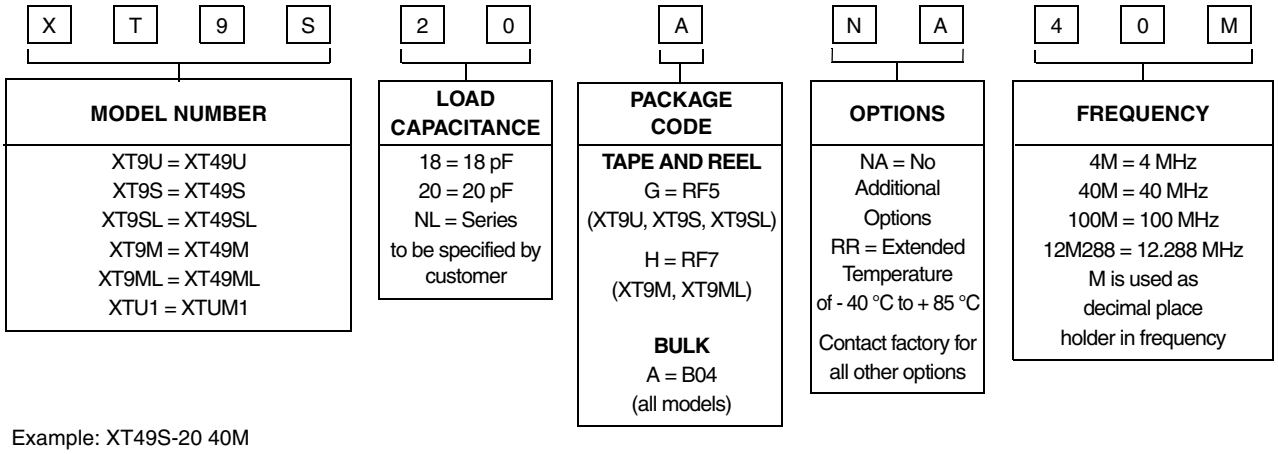
ORDERING INFORMATION

XT26T	32.768 kHz	e2
MODEL	FREQUENCY/kHz	JEDEC LEAD (Pb)-FREE STANDARD

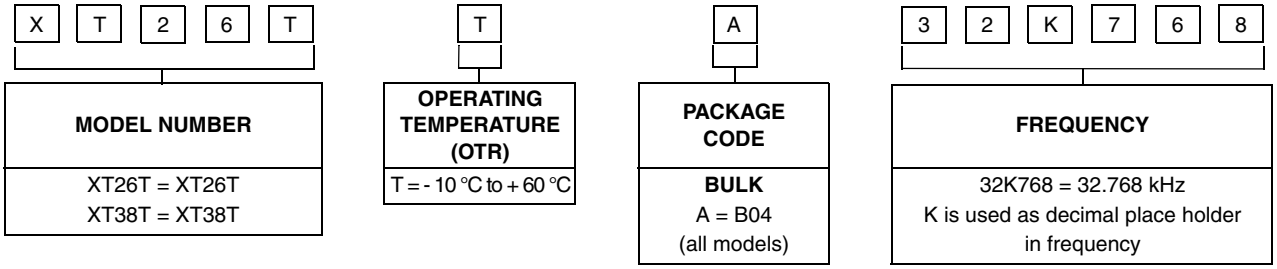
GLOBAL PART NUMBER

X	T	2	6	T	T	A	3	2	K	7	6	8
MODEL					OPERATING TEMPERATURE	PACKAGE CODE	FREQUENCY					

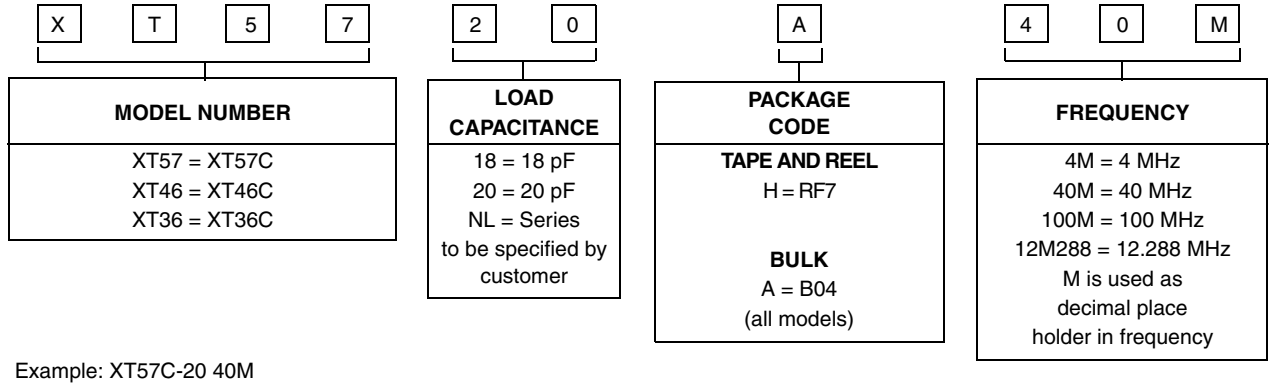
GLOBAL PART NUMBERING



Example: XT49S-20 40M



Example: XT26T 32.768K



Example: XT57C-20 40M

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