

## Tuning Fork Crystal



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.

### FEATURES

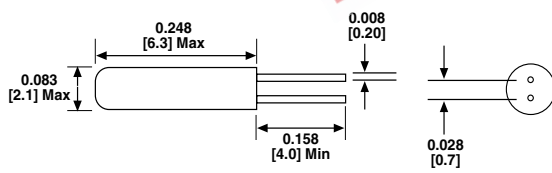
- Miniature package
- Low cost
- KHz frequency
- Tight tolerance
- 100 % Lead (Pb)-free and RoHS compliant



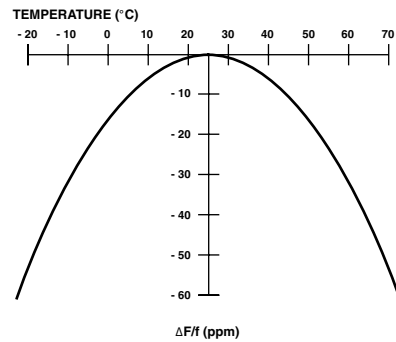
**RoHS**  
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	F <sub>O</sub>		KHz		32.768	
Frequency Tolerance	ΔF/F <sub>O</sub>	at 25 °C	ppm		± 20	
Frequency Coefficient	K	ref to 25 °C	ppm/(Δ°C) <sup>2</sup>			- 0.042
Operating Temperature Range	T <sub>OPR</sub>		°C	- 10		+ 60
Storing Temperature Range	T <sub>STG</sub>		°C	- 20		+ 70
Shunt Capacitance	C <sub>O</sub>		pF		0.85	2
Motional Capacitance	C <sub>1</sub>		fF	1	2	4
Load Capacitance	CL		pF		12.5	
Insulation Resistance	IR	100 V <sub>DC</sub>	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?

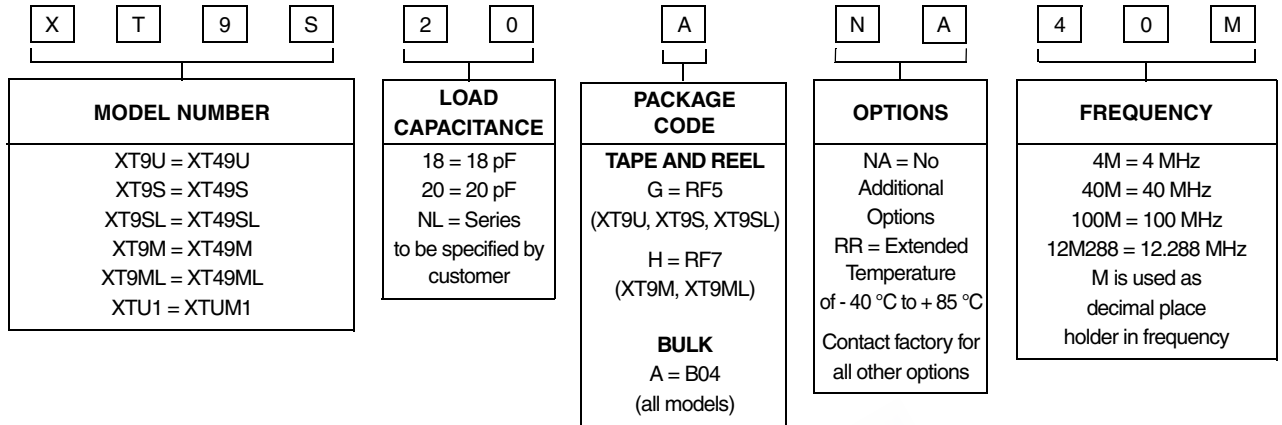
- 1) Change in Temperature (°C) = 45 - 25 = 20 °C
- 2) Change in Frequency = - 0.042 ppm\*(Δ°C)  
= - 0.042 ppm\*(20)<sup>2</sup>  
= - 16.8 ppm (max)

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

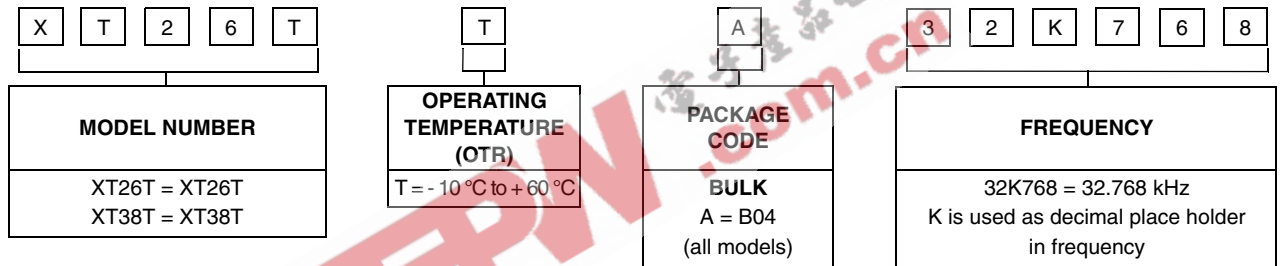
GLOBAL PART NUMBER												
X	T	2	6	T	T	A	3	2	K	7	6	8
MODEL				OPERATING TEMPERATURE		PACKAGE CODE	FREQUENCY					



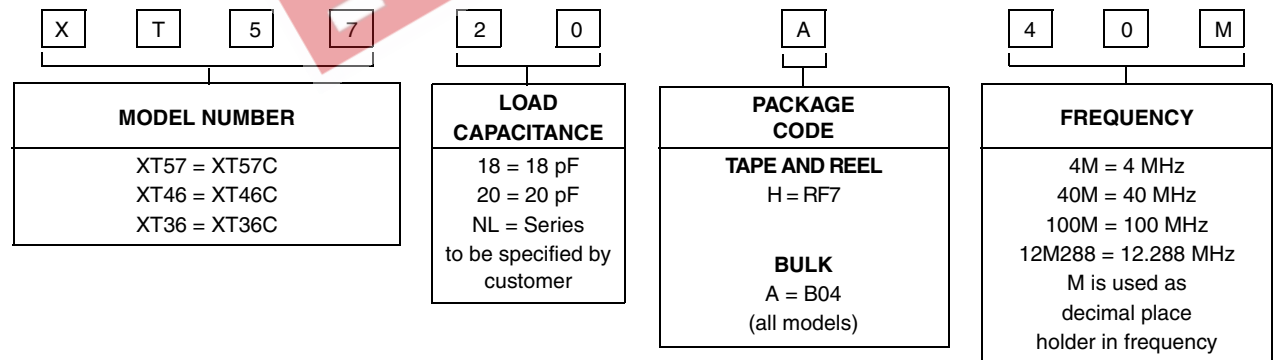
**GLOBAL PART NUMBERING**



Example: XT49S-20 40M



Example: XT26T 32.768K



Example: XT57C-20 40M



### Disclaimer

All product specifications and data are subject to change without notice.

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