

Tuning Fork Crystal



FEATURES

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

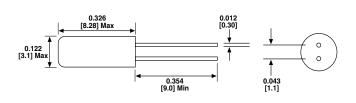


COMPLIANT

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.

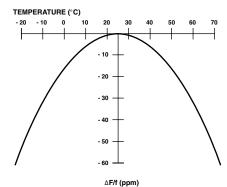
STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	МАХ
Frequency Range	Fo		kHz		32.768	
Frequency Tolerance	$\Delta F/F_0$	at 25 °C	ppm		± 20	
Frequency Coefficient	K	ref to 25 °C	ppm/(∆°C) ²			- 0.042
Operating Temperature Range	T _{OPR}		O°	- 10		+ 60
Storing Temperature Range	T _{STG}		С°	- 20		+ 70
Shunt Capacitance	Co		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			35

DIMENSIONS in inches [millimeters]



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

PARABOLIC TEMPERATURE CURVE

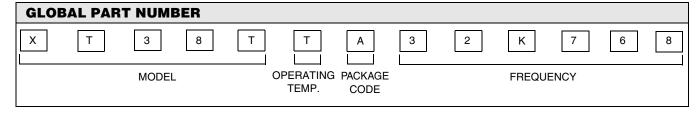


To determine frequency stability, use parabolic curvature (k). For example: What is stability at 45 $^\circ\text{C}?$

1) Change in Temperature (°C) = 45 - 25 = 20 °C

- 2) Change in Frequency = 0.042 ppm*(Δ° C)
 - $= -0.042 \text{ ppm}^{*}(20)^{2}$

= - 16.8 ppm (max)

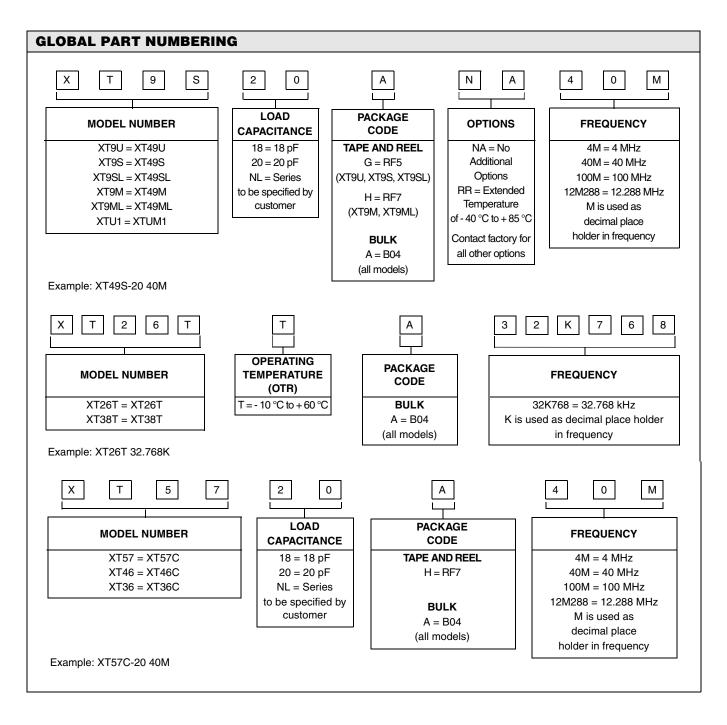


XT38T

Vishay Dale

Tuning Fork Crystal







Vishay

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