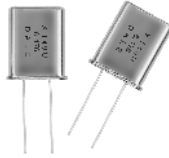


## Resistance Welded Holder Type Crystal Unit



The XT49U series is an industry standard AT cut crystal housed in a HC-49U package. It is our standard resistance weld type quartz crystal.

### FEATURES

- Low cost
- Industry standard
- Excellent aging
- Wide frequency range
- “AT” cut crystal
- 100 % Lead (Pb)-free and RoHS compliant

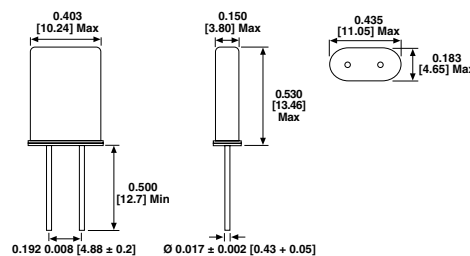


**RoHS**  
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	$F_O$		MHz	1.8432		125
Frequency Tolerance	$\Delta F/F_O$	at 25 °C	ppm	$\pm 10$	$\pm 30$	$\pm 50$
Temperature Stability	TC	ref to 25 °C	ppm	$\pm 10$	$\pm 30$	$\pm 50$
Operating Temperature Range	$T_{OPR}$		°C	- 20		+ 70
Storing Temperature Range	$T_{STG}$		°C	- 40		+ 85
Shunt Capacitance	$C_O$		pF			7
Load Capacitance	CL	Customer Specified	pF	10		Series
Insulator Resistance	IR	100 V <sub>DC</sub>	M $\Omega$	500		
Drive Level	DL		$\mu$ W		100	500
Aging	Fa	at 25 °C, per year	ppm	- 5.0		+ 5.0

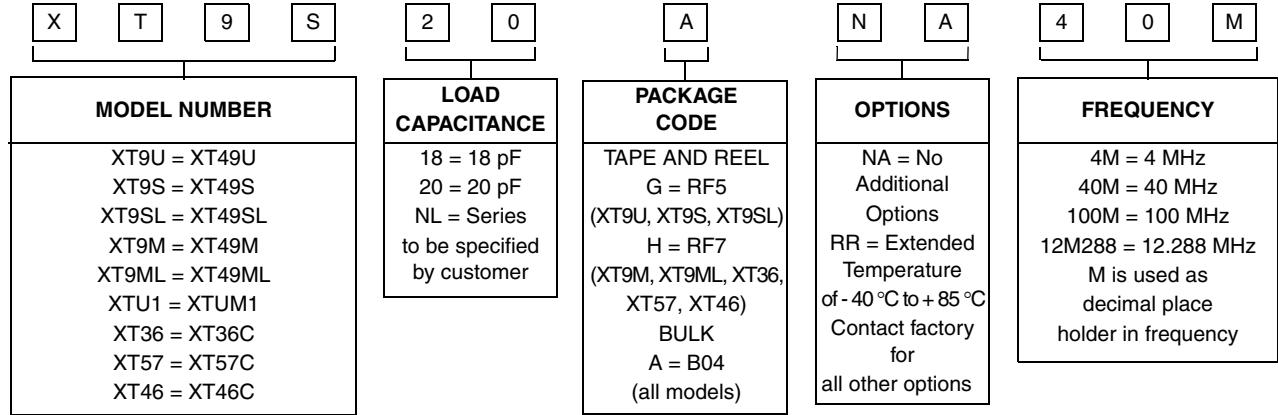
EQUIVALENT SERIES RESISTANCE (ESR) AND MODE OF VIBRATION (MODE)					
FREQUENCY RANGE (MHz)	MAX ESR ( $\Omega$ )	MODE	FREQUENCY RANGE (MHz)	MAX ESR ( $\Omega$ )	MODE
1.8432 to 1.999	650	Fundamental	6.000 to 7.999	50	Fundamental
2.000 to 2.999	500	Fundamental	8.000 to 12.999	35	Fundamental
3.000 to 3.499	250	Fundamental	13.000 to 32.000	25	Fundamental
3.500 to 3.999	150	Fundamental	24.000 to 29.999	60	3 <sup>rd</sup> Overtone
4.000 to 4.999	100	Fundamental	30.000 to 79.999	40	3 <sup>rd</sup> Overtone
5.000 to 5.999	80	Fundamental	80.000 to 125.000	90	5 <sup>th</sup> Overtone

### DIMENSIONS in inches [millimeters]

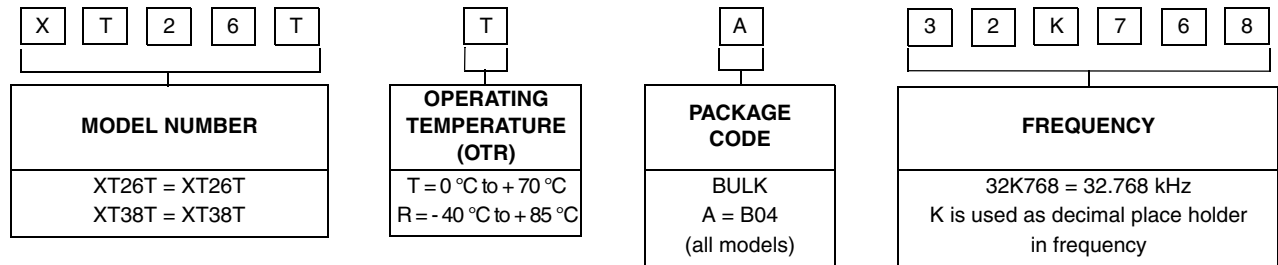


ORDERING INFORMATION					
<b>XT49U</b> MODEL	<b>R</b> OTR Blank = Standard R = - 40 °C to + 85 °C	<b>-20</b> LOAD Blank = Series - 16 = 16 pF - 20 = 20 pF - 30 = 30 pF - 32 = 32 pF	<b>SP</b> OPTIONS Blank = Standard SL = Sleeve SP = Spacer	<b>M</b> FREQUENCY/MHz	<b>e2</b> JEDEC LEAD (Pb)-FREE STANDARD

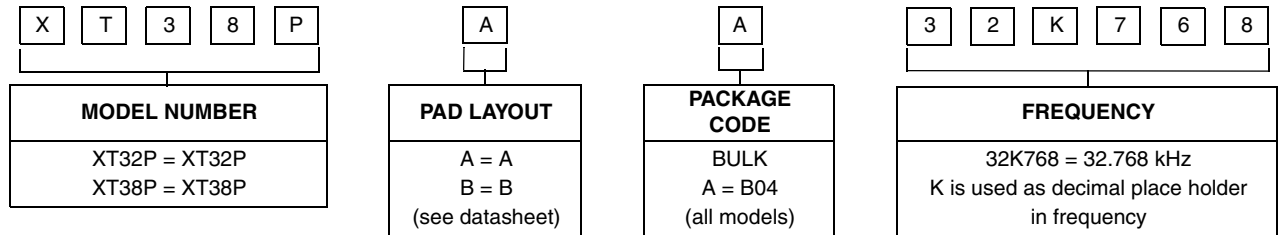
GLOBAL PART NUMBER										
X	T	9	U	2	0	A	N	A	4	M
MODEL				LOAD		PACKAGE CODE	OPTION		FREQUENCY	

**GLOBAL PART NUMBERING**


Example: XT49S-20 40M



Example: XT26T 32.768K



Example: XT38PA 32.768K



## Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.