

## Low Profile SMD Type Crystal Units



### FEATURES

- Low cost
- Industry standard
- Wide frequency range
- Excellent aging
- Surface mount
- 100 % Lead (Pb)-free and RoHS compliant



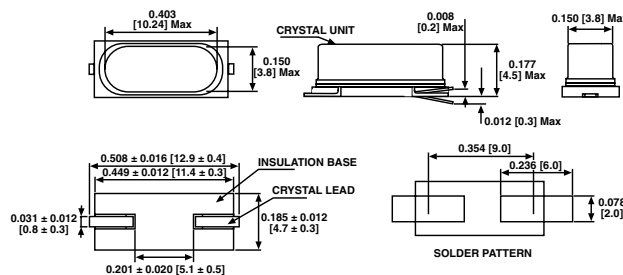
**RoHS**  
COMPLIANT

This part is a miniature AT cut strip crystal unit packaged for surface mounting.

STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	F <sub>0</sub>		MHz	3.200		66.000
Frequency Tolerance	ΔF/F <sub>0</sub>	at 25 °C	ppm	±10	±30	±50
Temperature Stability	TC	ref to 25 °C	ppm	±10	±30	±50
Operating Temperature Range	T <sub>OPR</sub>		°C	-20		+70
Storage Temperature Range	T <sub>STG</sub>		°C	-40		+85
Shunt Capacitance	C <sub>0</sub>		pF			7
Load Capacitance	CL	Customer Specified	pF	10		Series
Insulator Resistance	IR	100 V <sub>DC</sub>	MΩ	500		
Drive Level	DL		μW		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 (Ω)	MODE	FREQUENCY RANGE(MHZ)	MAX ESR (Ω)	MODE
3.200 to 4.499	150	Fundamental/AT	9.000 to 9.999	60	Fundamental/AT
4.500 to 5.999	120	Fundamental/AT	10.000 to 12.999	50	Fundamental/AT
6.000 to 6.999	100	Fundamental/AT	13.000 to 30.000	40	Fundamental/AT
7.000 to 7.999	90	Fundamental/AT	30.000 to 66.000	80	3 <sup>rd</sup> Overtone
8.000 to 8.999	80	Fundamental/AT			

### DIMENSIONS in inches [millimeters]

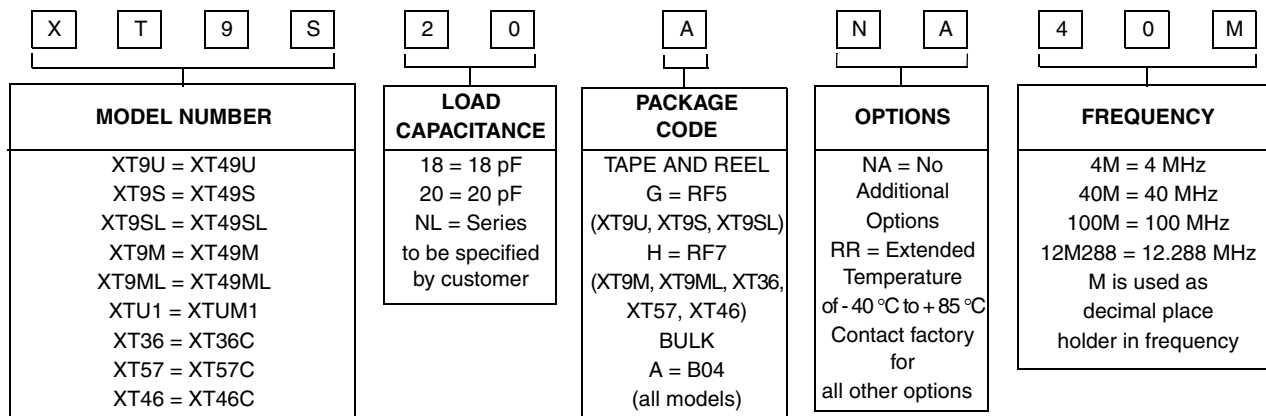


ORDERING INFORMATION				
<b>XT49 M</b> MODEL	<b>R</b> OTR Blank = Standard R = -40 °C to +85 °C	<b>-20</b> LOAD Blank = Series -20 = 20 pF -30 = 30 pF -32 = 32 pF	<b>20 M</b> FREQUENCY/MHz	<b>e2</b> JEDEC LEAD (Pb)-FREE STANDARD

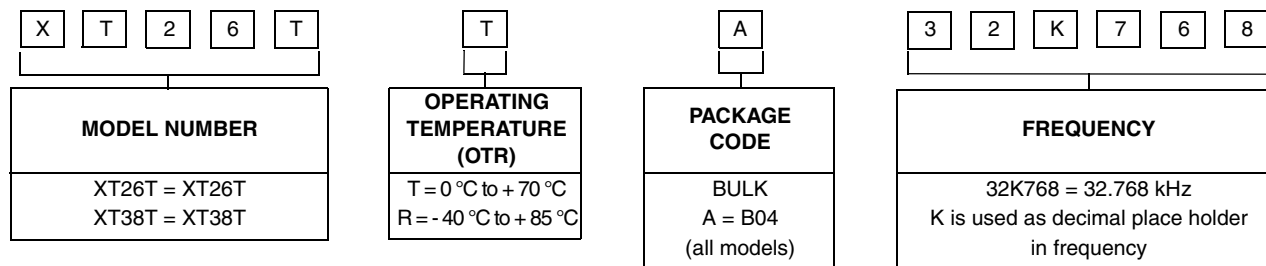
GLOBAL PART NUMBER											
X	T	9	M	2	0	A	N	A	2	0	M
MODEL				LOAD STABILITY		PACKAGE CODE	OPTIONS		FREQUENCY		



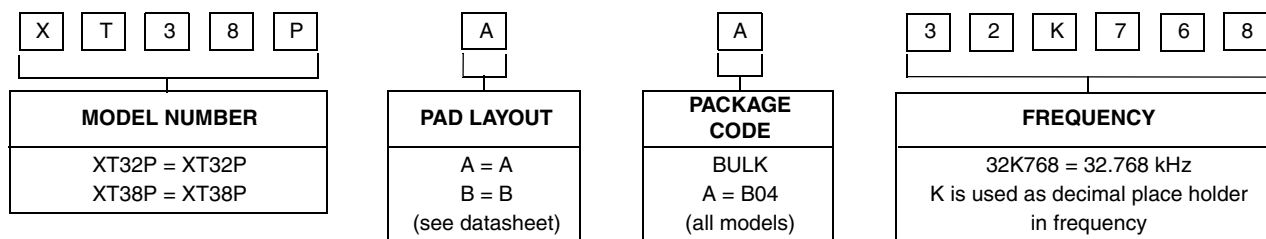
## GLOBAL PART NUMBERING



Example: XT49S-20 40M



Example: XT26T 32.768K



Example: XT38PA 32.768K



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