

## 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



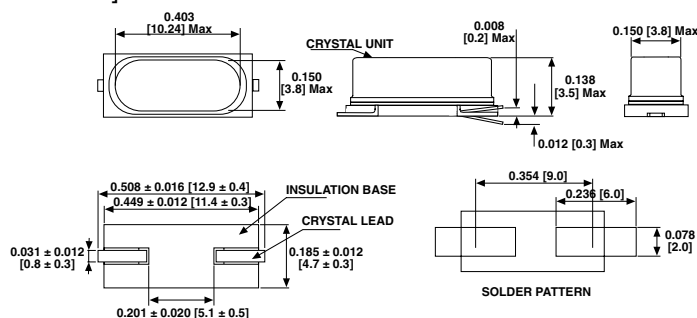
**RoHS**  
COMPLIANT

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	$F_o$		MHz	3.200		66.000
Frequency Tolerance	$\Delta F/F_o$	at 25 °C	ppm	$\pm 10$	$\pm 30$	$\pm 50$
Temperature Stability	TC	ref to 25 °C	ppm	$\pm 10$	30	$\pm 50$
Operating Temperature Range	$T_{OPR}$		°C	- 20		+ 70
Storage 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 $V_{DC}$	$M\Omega$	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
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]

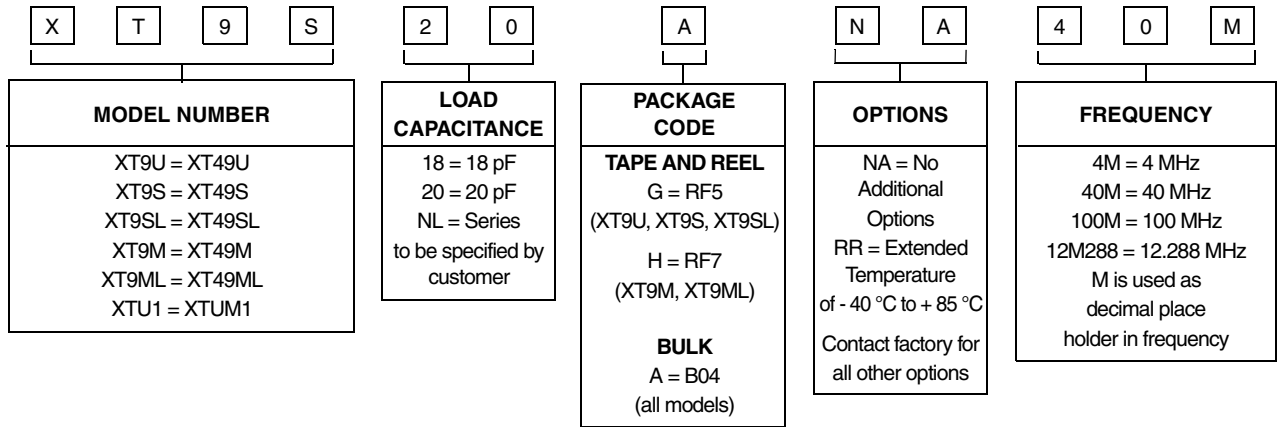


ORDERING INFORMATION				
<b>XT49ML</b> MODEL	<b>R</b> OTR Blank = Standard R = - 40 °C to + 85 °C	<b>- 20</b> LOAD Blank = Series - 20 = 20 pF - 30 = 30 pF - 32 = 32 pF	<b>20</b> FREQUENCY/MHz	<b>e2</b> JEDEC LEAD (Pb)-FREE STANDARD

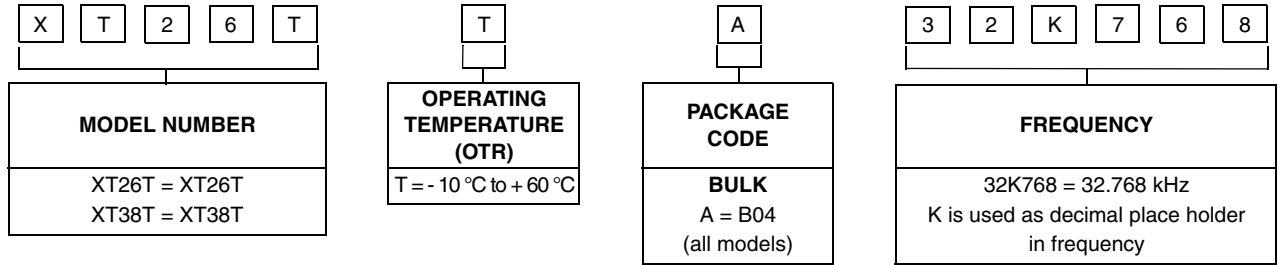
GLOBAL PART NUMBER												
X	T	9	M	L	2	0	A	N	A	2	0	M
MODEL					LOAD		CODE	OPTIONS		FREQUENCY		



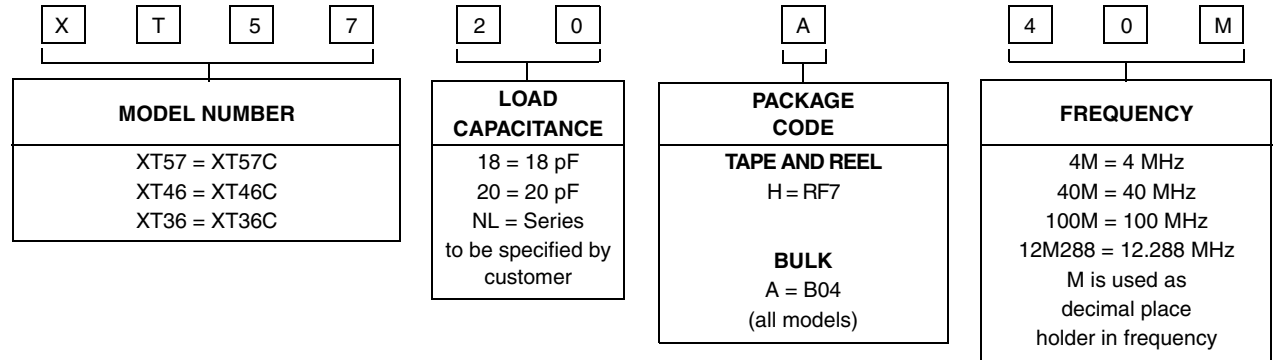
**GLOBAL PART NUMBERING**



Example: XT49S-20 40M



Example: XT26T 32.768K



Example: XT57C-20 40M



## Disclaimer

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