



Low Profile SMD Type Crystal Units



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

FEATURES

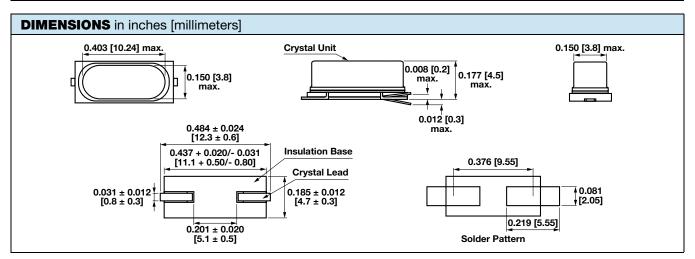
- Low cost
- Industry standard
- Wide frequency range
- Excellent aging
- Surface mount
- Compliant to RoHS directive 2002/95/EC



RoHS COMPLIAN

STANDARD ELECTRICAL SPECIFICATIONS						
PARAMETER	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Frequency range	Fo		MHz	3.579545	-	66.000
Frequency tolerance	ΔF/F _O	at 25 °C	ppm ppm	- 30 - 50	-	+ 30 + 50
Temperature stability	T _C	ref. to 25 °C				
Operating temperature range	T _{OPR}		°C	- 10	-	+ 70
Storage temperature range	T _{STG}		°C	- 55	-	+ 125
Shunt capacitance	C ₀		pF	-	-	7
Load capacitance	C _L	customer specified	pF	10	-	series
Insulation resistance	I _R	100 V _{DC}	MΩ	500	-	-
Drive level	D_L		μW	-	100	500
Aging	Fa	at 25 °C, per year	ppm	- 5	-	+ 5

EQUIVALENT SERIES RESISTANCE (ESR) AND MODE OF VIBRATION (MODE)						
FREQUENCY RANGE (MHz)	MAX. ESR (Ω)	MODE	FREQUENCY RANGE (MHz)	MAX. ESR (Ω)	MODE	
3.579 to 3.999	200	fundamental/AT	10.000 to 13.999	80	fundamental/AT	
4.000 to 4.999	150	fundamental/AT	14.000 to 39.999	50	fundamental/AT	
5.000 to 5.999	120	fundamental/AT	40.000 to 66.999	80	3 rd overtone	
6.000 to 9.999	100	fundamental/AT				



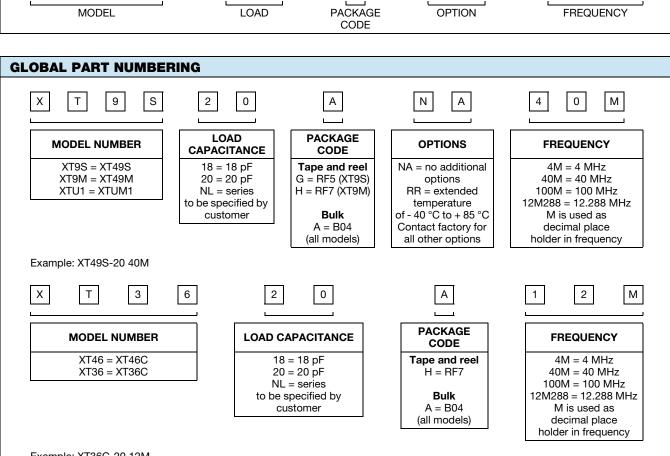
Vishay Dale

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ORDERING INFORMATION							
XT49M	R	-20	20M	e2			
MODEL	OTR blank = standard R = - 40 °C to + 85 °C	LOAD blank = series -20 = 20 pF -30 = 30 pF -32 = 32 pF	FREQUENCY/MHz	JEDEC LEAD (Pb)-FREE STANDARD			

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



For technical questions, contact: frequency@vishay.com

Example: XT36C-20 12M



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 XT9MNLANA7M3728
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 XT9M20ANA4M9152
 XT9MNLANA11M0592
 XT9M20ANA18M432

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 XT9M30ANA24M576

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