XT49M

RoHS

COMPLIANT

Vishay Dale

www.vishay.com

Low Profile SMD Type Crystal Units



FEATURES

- Low cost
- Industry standard
- Wide frequency range
- · Excellent aging
- Surface-mount
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

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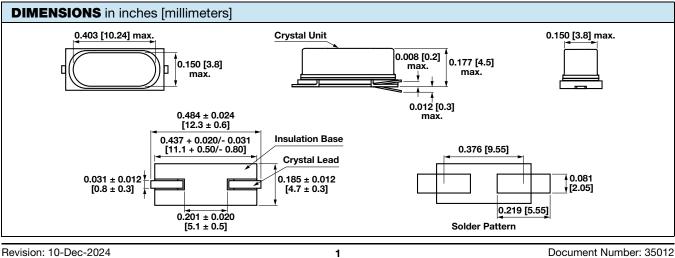
Note

Not compatible with vapor phase reflow mounting

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

STANDARD ELECTRICAL SPECIFICATIONS							
PARAMETER	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.	
Frequency range	Fo		MHz	3.579545	-	66.000	
Frequency tolerance	$\Delta F/F_{O}$	At 25 °C	ppm	-	± 10, ± 15, ± 20, ± 25, ± 30	-	
Temperature stability	T _C	Ref. to 25 °C	ppm	-	± 20, ± 25, ± 30, ± 35, ± 50, ± 100	-	
Operating temperature range	T _{OPR}		°C	-10	-	+70	
Storage temperature range	T _{STG}		°C	-55	-	+125	
Shunt capacitance	C ₀		pF	-	-	7	
Load capacitance	CL	Customer specified	pF	10	-	Series	
Insulation resistance	I _R	100 V _{DC}	MΩ	500	-	-	
Drive level	DL		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)	ΜΑΧ. ESR (Ω)	MODE	FREQUENCY RANGE (MHz)	ΜΑΧ. 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				



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For technical questions, contact: frequency@vishay.com

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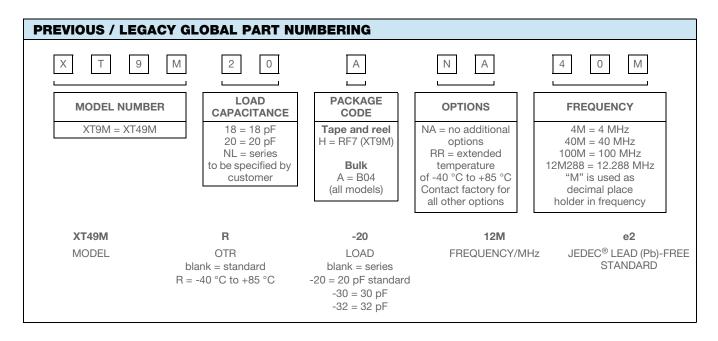
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PART NUMBER CONFIGURATIONS (to be used on all New Designs)										
ХТ 9	M <u>2</u> 0	н ч	J	R L	G	X	8 M 1 9	92	E L	
Crystal Packag Size		Pack Code	Freq. Tolerance	Operating Temp.	Temp. Stability	Options	Frequency		Lead (PB)-free	
9M	20 = std. SE =	A = bulk H = tape and reel	G = ± 30 ppm E = ± 25 ppm H = ± 20 ppm	S = -10 °C to +70 °C	C = \pm 100 ppm D = \pm 50 ppm F = \pm 35 ppm	X = no options	Use "M" as decimal place holder		E = lead (Pb)-free	
	series		$I = \pm 15 \text{ ppm}$ $J = \pm 10 \text{ ppm}$	R = -40 °C to +85 °C	G = \pm 30 ppm E = \pm 25 ppm H = \pm 20 ppm	Contact factory for available options	Frequency mu five digits - con with "0" at the	nplete		

Previous / legacy part number information: still valid for existing designs; all New Designs should use the new part configuration above





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