

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 <u>www.vishay.com/doc?99912</u>



RoHS

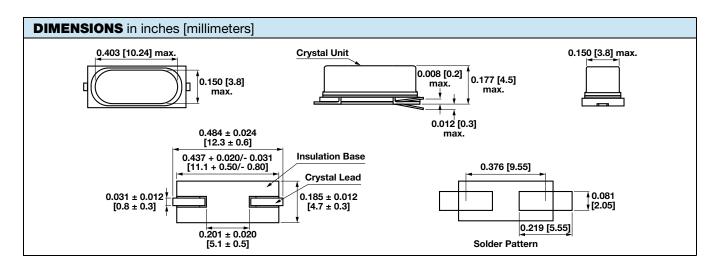
Note

• 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	ΔF/F _O	At 25 °C	ppm	-30	-	+30		
Temperature stability	T _C	Ref. to 25 °C	ppm	-50	-	+50		
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}	ΜΩ	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							



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Vishay Dale



XT49M R -20 20M e2

MODEL OTR LOAD FREQUENCY/MHz JEDEC® LEAD (Pb)-FREE

blank = standard blank = series STANDARD

R = -40 °C to +85 °C -20 = 20 pF

-30 = 30 pF -32 = 32 pF

GLOBAL PART NUMBER

X T 9 M 2 0 A N A 2 0 M

MODEL LOAD PACKAGE OPTION FREQUENCY

GLOBAL PART NUMBERING

X T 9 S 2 0 A N A 4 0 M

MODEL NUMBER

XT9S = XT49S XT9M = XT49M XTU1 = XTUM1

LOAD CAPACITANCE

18 = 18 pF 20 = 20 pF NL = series to be specified by customer

PACKAGE CODE

Tape and reel G = RF5 (XT9S) H = RF7 (XT9M)

> Bulk A = B04 (all models)

OPTIONS

NA = no additional options RR = extended temperature of - 40 °C to + 85 °C Contact factory for all other options

FREQUENCY

4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency

Example: XT49S-20 40M

X T 3 6

MODEL NUMBER

XT46 = XT46C XT36 = XT36C 2 0

LOAD CAPACITANCE

18 = 18 pF 20 = 20 pF NL = series to be specified by customer

PACKAGE CODE

Tape and reel H = RF7

Bulk
A = B04
(all models)

FREQUENCY

2

М

4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency

Example: XT36C-20 12M

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