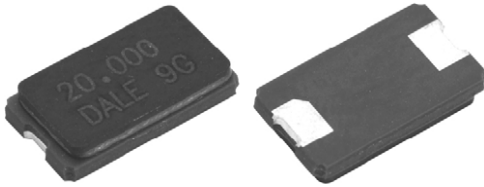


## Surface-Mount Crystal



### FEATURES

- Miniature size: 8.0 x 4.5 x 1.8 (mm)
- Wide frequency range
- Glass sealing
- Emboss tapping

The XT36C part is a miniature SMD crystal with 8.0 mm x 4.5 mm ceramic package and a height of 1.8 mm maximum. It is widely applied in notebook computer, PCMCIA, and communication equipment.

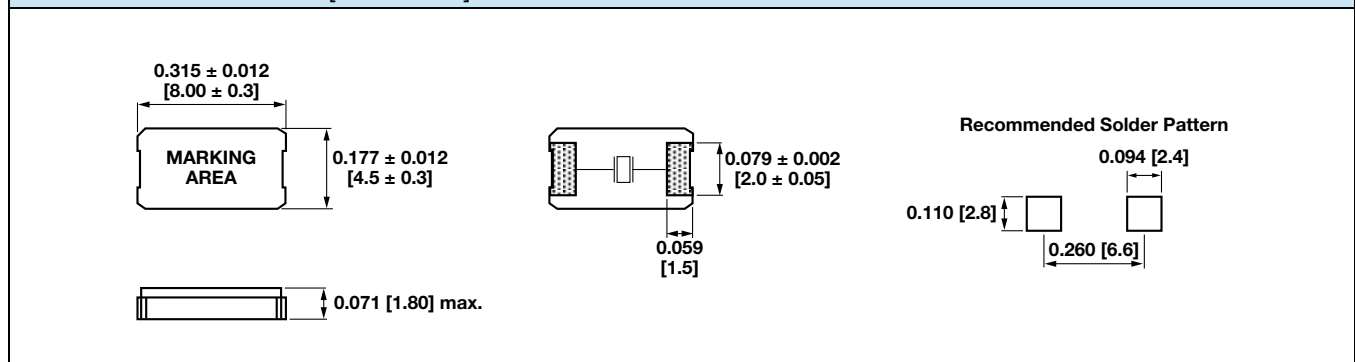
### STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Frequency range	F <sub>O</sub>		MHz	10.000	-	70.000
Frequency tolerance	ΔF/F <sub>O</sub>	At 25 °C	ppm	-	± 50	-
Temperature stability	T <sub>C</sub>	Ref. to 25 °C	ppm	-	± 50	-
Operating temperature range	T <sub>OPR</sub>		°C	-10	-	+ 60
Storage temperature range	T <sub>STG</sub>		°C	-55	-	+ 125
Shunt capacitance	C <sub>0</sub>		pF	-	-	7
Load capacitance	C <sub>L</sub>	Customer specified	pF	10	-	Series
Insulation resistance	I <sub>R</sub>	100 V <sub>DC</sub>	MΩ	500	-	-
Drive level	D <sub>L</sub>		μW	-	10	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
10.000 to 10.999	110	Fundamental	20.000 to 31.999	25	Fundamental
11.000 to 14.099	50	Fundamental	32.000 to 47.999	110	3 <sup>rd</sup> overtone
14.100 to 17.999	45	Fundamental	48.000 to 70.000	100	3 <sup>rd</sup> overtone
18.000 to 19.999	30	Fundamental			

### DIMENSIONS in inches [millimeters]





ORDERING INFORMATION			
<b>XT36C</b>	<b>-20</b>	<b>24M</b>	<b>e4</b>
MODEL	LOAD blank = series -12 = 12 pF -16 = 16 pF -20 = 20 pF -32 = 32 pF	FREQUENCY/MHz	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER			
X	T	3	6
MODEL			
2	0		
LOAD		H	
		PACKAGE CODE	
		2	4
			M
FREQUENCY			

GLOBAL PART NUMBERING					
X	T	9	S		
MODEL NUMBER				2	0
XT9S = XT49S XT9M = XT49M				LOAD CAPACITANCE	
				18 = 18 pF 20 = 20 pF NL = series to be specified by customer	
				A	
				PACKAGE CODE	
				Tape and reel G = RF5 (XT9S) H = RF7 (XT9M)	
				Bulk A = B04 (all models)	
				N	A
				OPTIONS	
				NA = no additional options RR = extended temperature of -40 °C to +85 °C Contact factory for all other options	
				4	0
					M
				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				2	0
XT46 = XT46C XT36 = XT36C				LOAD CAPACITANCE	
				18 = 18 pF 20 = 20 pF NL = series to be specified by customer	
				PACKAGE CODE	
				Tape and reel H = RF7	
				1	2
					M
				FREQUENCY	
				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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