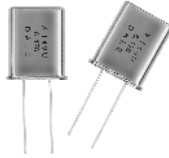


Resistance Welded Holder Type Crystal Unit



The XT49U series is an industry standard AT cut crystal housed in a HC-49U package. It is our standard resistance weld type quartz crystal.

FEATURES

- Low cost
- Industry standard
- Excellent aging
- Wide frequency range
- “AT” cut crystal
- 100 % Lead (Pb)-free and RoHS compliant



RoHS
COMPLIANT

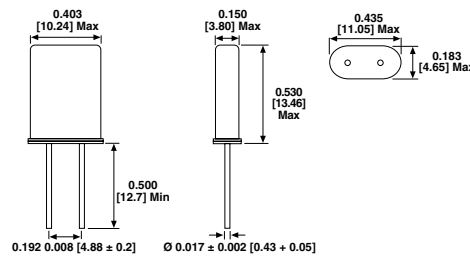
STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	UNIT	MIN	TYPICAL	MAX
Frequency Range	F_O		MHz	1.8432		125
Frequency Tolerance	$\Delta F/F_O$	at 25 °C	ppm	± 10	± 30	± 50
Temperature Stability	TC	ref to 25 °C	ppm	± 10	± 30	± 50
Operating Temperature Range	T_{OPR}		°C	- 20		+ 70
Storing 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 Ω	500		
Drive Level	DL		μ 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 (Ω)	MODE	FREQUENCY RANGE (MHz)	MAX ESR (Ω)	MODE
1.8432 to 1.999	650	Fundamental	6.000 to 7.999	50	Fundamental
2.000 to 2.999	500	Fundamental	8.000 to 12.999	35	Fundamental
3.000 to 3.499	250	Fundamental	13.000 to 32.000	25	Fundamental
3.500 to 3.999	150	Fundamental	24.000 to 29.999	60	3 rd Overtone
4.000 to 4.999	100	Fundamental	30.000 to 79.999	40	3 rd Overtone
5.000 to 5.999	80	Fundamental	80.000 to 125.000	90	5 th Overtone

DIMENSIONS in inches [millimeters]



ORDERING INFORMATION

XT49U MODEL	R OTR Blank = Standard R = - 40 °C to + 85 °C	-20 LOAD Blank = Series - 16 = 16 pF - 20 = 20 pF - 30 = 30 pF - 32 = 32 pF	SP OPTIONS Blank = Standard SL = Sleeve SP = Spacer	M FREQUENCY/MHz	e2 JEDEC LEAD (Pb)-FREE STANDARD
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GLOBAL PART NUMBER

X	T	9	U	2	0	A	N	A	4	M
MODEL				LOAD		PACKAGE CODE	OPTION		FREQUENCY	



GLOBAL PART NUMBERING

X	T	9	S	2	0	A	N	A	4	0	M
MODEL NUMBER				LOAD CAPACITANCE		PACKAGE CODE		OPTIONS		FREQUENCY	
XT9U = XT49U XT9S = XT49S XT9SL = XT49SL XT9M = XT49M XT9ML = XT49ML XTU1 = XTUM1 XT36 = XT36C XT57 = XT57C XT46 = XT46C				18 = 18 pF 20 = 20 pF NL = Series to be specified by customer		TAPE AND REEL G = RF5 (XT9U, XT9S, XT9SL) H = RF7 (XT9M, XT9ML, XT36, XT57, XT46) BULK A = B04 (all models)		NA = No Additional Options RR = Extended Temperature of -40 °C to +85 °C Contact factory for all other options		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	2	6	T	T	A	3	2	K	7	6	8
MODEL NUMBER					OPERATING TEMPERATURE (OTR)		PACKAGE CODE		FREQUENCY			
XT26T = XT26T XT38T = XT38T					T = 0 °C to +70 °C R = -40 °C to +85 °C		BULK A = B04 (all models)		32K768 = 32.768 kHz K is used as decimal place holder in frequency			

Example: XT26T 32.768K

X	T	3	8	P	A	A	3	2	K	7	6	8
MODEL NUMBER					PAD LAYOUT		PACKAGE CODE		FREQUENCY			
XT32P = XT32P XT38P = XT38P					A = A B = B (see datasheet)		BULK A = B04 (all models)		32K768 = 32.768 kHz K is used as decimal place holder in frequency			

Example: XT38PA 32.768K



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