

Quartz

Thru Hole

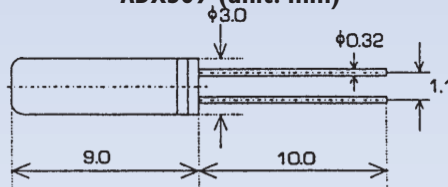
ADX309 and ADX310 Series

ADX309 &
ADX310

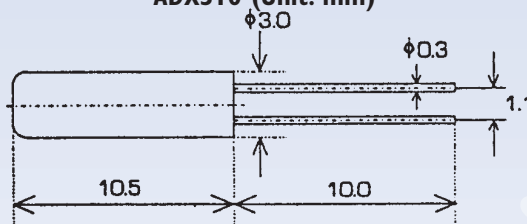
FEATURES

- The units are high performance, miniature crystal units manufactured with ultrahigh-precision processing technology.
- High stability has been gained through vacuum sealing. Outstanding vibration resistance, shock resistance and environment characteristics.
- Applications: AV equipment, communication equipment and measuring instruments.

ADX309 (unit: mm)



ADX310 (Unit: mm)



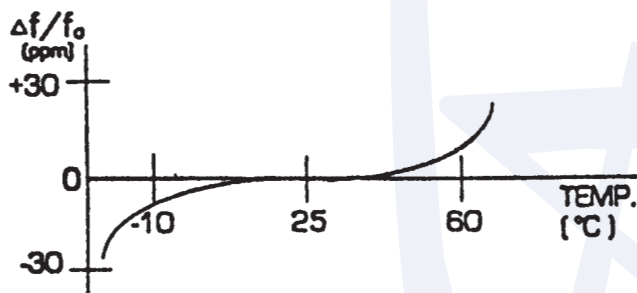
STANDARD SPECIFICATIONS

Item		ADX310	ADX309	Conditions
Frequency Range	F	3.500 MHz ~ 3.900 MHz	4.000 MHz ~ 30.000 MHz	Fundamental
Frequency Tolerance				
25°C	# f/F	±30 ppm or ±50 ppm	±30 ppm or ±50 ppm	Reference Temperature
-10°C ~ +60°C		±30 ppm or ±10 ppm	±30 ppm or ±10 ppm	Adjustment Tolerance
Freq. vs. Temperature Characteristics		See Drawing	See Drawing	
Operating Temperature Range	To	-10°C ~ +60°C	-10°C ~ +60°C	
Storage Temperature Range		-40°C ~ +85°C	-40°C ~ +85°C	
Equivalent Series Resistance	Rs	See Drawing	See Drawing	
Load Capacitance	CL	Please Specify	Please Specify	
Shunt Capacitance	Co	5 pF max.	5 pF max.	
Drive Level	P	200 μW	50 μW (under 10 MHz) 500 μW (10 MHz and higher) 50 μW (10 MHz) 500 μW (10 MHz)	
Insulation Resistance	IR	500 MΩ min.	500 MΩ min.	DC 100V ±15V
Aging (for first year)	# f/F	±5 ppm max.	±5 ppm max.	T = 25°C ±3°C
Sealing		1 x 10 ⁻⁷ mber-l/sec. max.	1 x 10 ⁻⁷ mber-l/sec. max.	
Shock Resistance	# f/F	±5 ppm max Drop Test of 3 times on a Hard Board from 75 cm Height.	±5 ppm max.	Conditions will vary depending on the freq.

EQUIVALENT SERIES RESISTANCE (E.S.R.)

Frequency (MHz)	ADX310	ADX309
3.5 ~ 4.0	200	
4.01 ~ 8.0		150 Ω
6.0 ~ 10.0		100 Ω
10.0		50 Ω
16		50 Ω
20		50 Ω
28		50 Ω

FREQUENCY vs. TEMPERATURE CHARACTERISTICS



SEE PAGE 33 FOR PART NUMBERING GUIDE

Quartz Part Numbering Guide

Thru Hole

ADX Series

OSC

VCXO
VCO

TCXO
VCTCXO

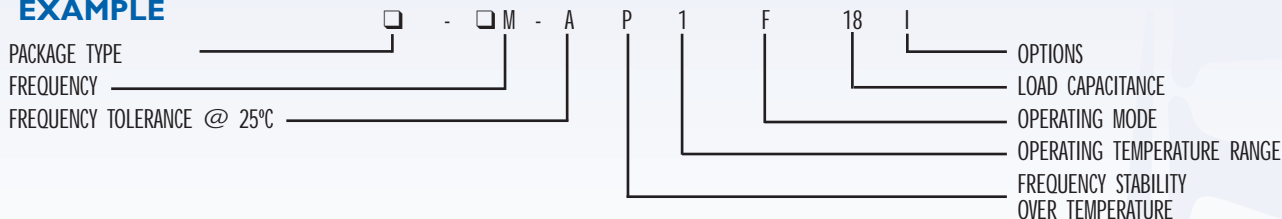
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Package Type	UM-1	ADXUM1	pg34	HC42/U	ADX42	pg34	HC49/U	ADX49	pg34	HC49/T	ADX49T	pg36
	UM-2	ADXUM2	pg34	HC43/U	ADX43	pg34	HC49/S	ADX49S	pg35	HC50/U	ADX50	pg36
	UM-5	ADXUM5	pg34	HC47/U	ADX47	pg34	HC49/SS	ADX49SS	pg36	HC50/T	ADX50T	pg36
	HC36/U	ADX36	pg34	HC48/U	ADX48	pg34	HC49/SS	ADX49SS1	pg36			
Frequency	MHz		M	KHz		K						
Frequency Tolerance @ 25°C	±100ppm		A	±40ppm		D	±25ppm		G	±10ppm		J
	±50ppm		B	±35ppm		E	±20ppm		H	±5ppm		K
	±45ppm		C	±30ppm		F	±15ppm		I			
Frequency Stability Over Temperature	±100 ppm		P	±40 ppm		S	±25 ppm		V	±10 ppm		Y
	±50 ppm		Q	±35 ppm		T	±20 ppm		W	±5 ppm		Z
	±45 ppm		R	±30 ppm		U	±15 ppm		X			
Operating Temperature Range	0°C to +70°C		1	-20°C to +70°C		3	-40°C to +85°C		5	0°C to +55°C		7
	-10°C to +60°C		2	-40°C to +75°C		4	-40°C to +90°C		6	-40°C to +125°C		8
Operating Mode	Fundamental		F	5th Overtone		5	9th Overtone		9			
	3rd Overtone		3	7th Overtone		7						
Load Capacitance	6 pF	6	18 pF		18	30 pF	30	Series		S		
	10 pF	10	20 pF		20	32 pF	32					
	12 pF	12	22 pF		22	50 pF	50					
Options	Third Lead		L	Insulator Tab		I	Tape & Reel		T	Vinyl Sleeving		V

EXAMPLE



Package Type	ADX26T	pg37		ADX309	pg39	
	ADX38T	pg38		ADX310	pg39	
Frequency	MHz		M	KHz		K
Frequency Tolerance @ 25 C	±100ppm		A	±35ppm		E
	±50ppm		B	±30ppm		F
	±45ppm		C	±25ppm		G
	±40ppm		D	±20ppm		H
Load Capacitance	6pF	6	7pF	7	12.5pF	12.5
Option	Bulk	Blank	Tape & Reel	T		

