



## • AT-39 Series



The AT-39 crystal is the miniature cylinder high frequency AT Cut crystal. In term of volume, it has the smallest footprint of any crystal package.

### FEATURES

- Low Cost
- Industry Standard
- Wide Frequency Range
- Small Compact Size

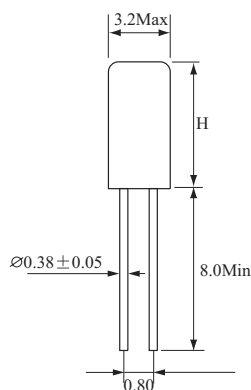
## Electrical Specifications

Parameter	Symb	Condition	Min	Typ	Max	Units
Frequency Range	F <sub>o</sub>		3.579545		70	MHz
Frequency Tolerance	$\Delta F / F_o$	AT 25°C	$\pm 20$	$\pm 30$	$\pm 50$	ppm
Temperature Stability	TC	REF TO 25°C	$\pm 20$	$\pm 30$	$\pm 50$	ppm
Operating Temperature Range	T <sub>OPR</sub>		-10		+60	°C
Storage Temperature Range	T <sub>STG</sub>		-40		+85	°C
Shunt Capacitance	C <sub>o</sub>				7	pF
Load Capacitance	CL	Customer Specified	10	16	Series	pF
Insulator Resistance	IR	100V <sub>DC</sub>	500			M $\Omega$
Drive Level	DL			100	500	$\mu$ W
Aging(First year)	F <sub>a</sub>	AT 25°C	-5.0		+5.0	ppm

## Equivalent Series Resistance(ESR) and Mode of Vibration(Mode)

Frequency Range(MHz)	Max ESR( $\Omega$ )	Mode	Frequency Range(MHz)	Max ESR( $\Omega$ )	Mode
3.579545 to 3.999	200	Fundamental	9.000 to 12.999	60	Fundamental
4.000 to 4.999	150	Fundamental	13.000 to 15.999	50	Fundamental
5.000 to 5.999	120	Fundamental	16.000 to 19.999	40	Fundamental
6.000 to 6.999	100	Fundamental	20.000 to 29.999	30	Fundamental
7.000 to 8.999	80	Fundamental	30.000 to 70.000	100	3 <sup>rd</sup> Overtone

## Mechanical Dimensions(mm)



Frequency  $\leq$  4MHz H: 10.5Max

Frequency  $>$  4MHz H: 9.0Max

### TAIWAN:

HOSONIC ELECTRONIC CO., LTD.  
23-1 LANE 84. CHUN YING ST. SHULIN CHEN.  
TAIPEI 23804. TAIWAN. R.O.C.

☎: 886-2-86875200  
☎: 886-2-26816456

WEB SITE: <http://www.hosonic.com.tw>

### CHINA:

HANGZHOU HOSONIC ELECTRONIC CO., LTD.  
XUNSHAN LIANGZHU TOWN MOGANSHAN ROAD  
HANGZHOU, ZHEJIANG, CHINA

☎: (86)-571-88778189  
☎: (86)-571-88778857

Specifications are subject to change without notice