



HIGH FREQUENCY MINIATURE CRYSTAL UNITS

• 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	Symbol	Condition	Min	Typ	Max	Units
Frequency Range	F ₀		3.579545		70	MHz
Frequency Tolerance	$\Delta F/F_0$	At 25°C	± 20	± 30	± 30	ppm
Temperature Stability	T ₀	REF TO 25°C	± 20	± 30	± 30	ppm
Operating Temperature Range	T _{OP}		-10		+60	°C
Storage Temperature Range	T _{STG}		-40		+85	°C
Mount Capacitance	C ₀				7	pF
Load Capacitance	C _L	Customer Specified	10	16	Series	pF
Insulator Resistance	R _i	100V _{DC}	300			MΩ
Drive Level	D ₀			100	200	μW
Aging(First year)	F _a	At 25°C	-5.0		+1.0	ppm

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

Frequency Range(MHz)	Max ESR(Ω)	Mode	Frequency Range(MHz)	Max ESR(Ω)	Mode
3.579545 to 3.999	200	Fundamental	9.000 to 12.999	80	Fundamental
4.000 to 4.999	150	Fundamental	13.000 to 15.999	80	Fundamental
5.000 to 5.999	120	Fundamental	16.000 to 19.999	80	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 rd Overtone

Mechanical Dimensions(mm)



Frequency ≤ 4MHz H:10.5Max
Frequency > 4MHz H:9.0Max

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)