

## MHZ Crystals Units

Frequency Range: 3.01MHz~100.00MHz

Features:

- High Reliability, Low Cost Crystal
- Tight Stability & Extended Temperature Available
- Lead-free Type
- Leaded Products available
- W/Ground or W/O ground



ISO/TS 16949:2002  
SGS CERT.NO.CN04/036272

Actual size



F2

F3

FS

## Standard Specification

Frequency Range	3.01~100.00MHz, other frequency range also available
Frequency Tolerance	±30PPM is standard. Tight tolerances also available
Frequency Stability Over Operating Temperature Range (refer to 25°C)	±50PPM is standard. Tight tolerances also available
Operating Temperature Range	-10~+60°C is standard. Other operating range also available
Operable Temperature Range	-40~+85°C
Equivalent Series Resistance	Pls refer to the ESR Table
ESR/Rs(Measured at Series Resonance)	
Driver Level	50μW is standard. 0.001μW to 1000μW also available
Load Capacitance	12pF is standard. 3pF, 4.5pF, 6pF up to 30pF also available
Aging	±5PPM/Year

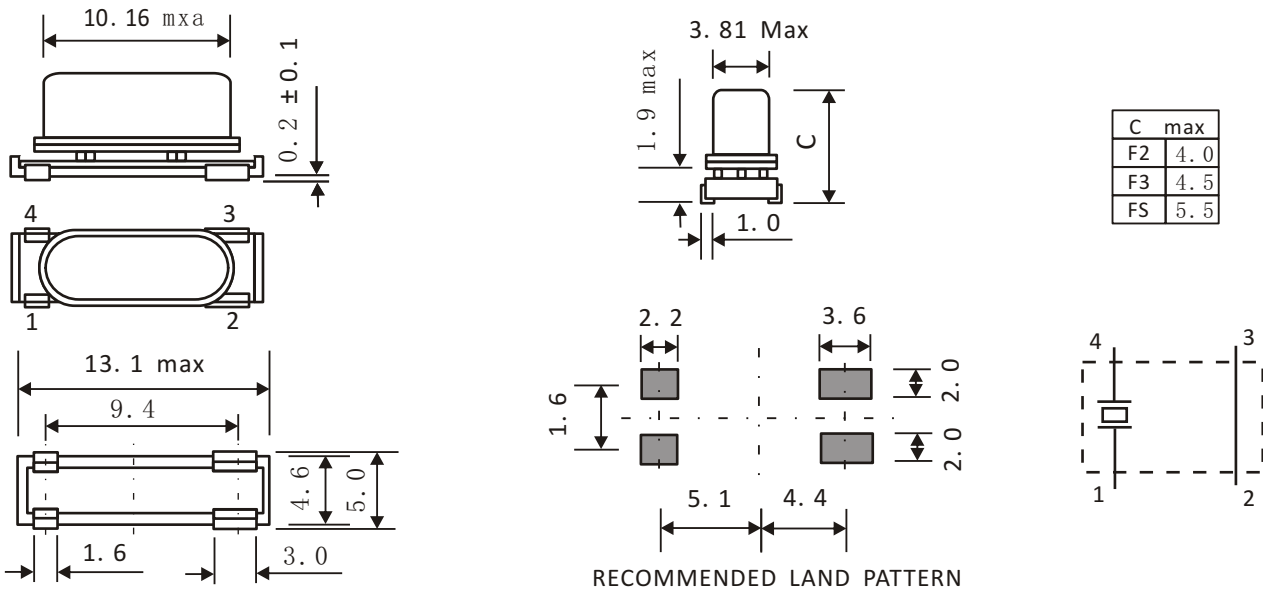
## ESR Table

	Frequency Range (MHz)	Max. ESR (Ω)
AT Cut Fundamental	3.01~4.00	300~150
	4.01~5.50	130~80
	5.51~8.00	80~50
	8.01~40.00	50~30
AT Cut 3 <sup>rd</sup> Overtone	26.00~100.00	100
BT Cut Fundamental	27.00~50.00	40

Note:

1. Manufacturer reserves the right to change the specification and content of this product for improvement without notification.
2. Custom specification is welcome. Please contact our sales representative for further details.
3. If the crystal is intended for applications which have direct impact on human life and properties, and require a high degree of reliability and safety concerns, customers must provide full information such as but not limit to the application, electrical and reliability specification at the inquiry beginning stage.

## Dimensions (mm) and Solder Pad Layout (mm)



Please build and send to us your Inquiry Spec Code. You are welcome to add other custom requirement in written and send to us along with the Inquiry Spec. Code. We will reply with a preliminary Product Code.

AT Inquiry Spec Code Builder

F S / 12M / 50 / 100 / -10+60 / S / IND

Type	Frequency (M)	Freq. Tol. At 25Deg C	Freq. Tol. Over TC Range	TC Range	Load Cap	Application
eg		eg	eg	eg	eg	eg
	32.768K=32.768KHZ	5+/-5ppm	50+/-50ppm	0-50	12.5=12.5pF	CON=Consumer
	4M=4.000000MHz	+5=+5ppm	5=+/-5ppm	-10+60	4.5=4.5pF	CON=Automotive After Market
	3.579545M=3.579545MHz			-20+70	S=Series	IND=Industrial
	155.2M=155.2MHz			-40+85		MP=Micro-Processor
				-40+125		