

CRYSTAL UNITS

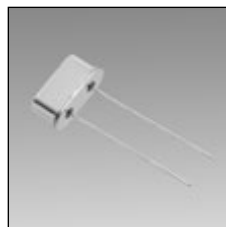
For Microprocessor

CRYSTAL UNITS / AT-51SERIES

These crystal units are intended for use as reference clocks in microprocessors or the like.

■ Features

- Meets the requirements for various applications with the availability of abundant standard frequencies.
- Surface mount type.
- Taping type and gull-wing type are available for automatic mounting.



AT-51



AT-51CD2

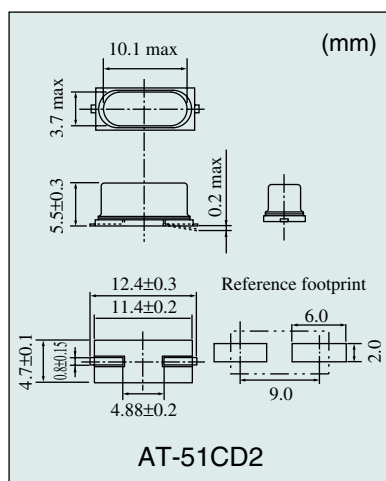
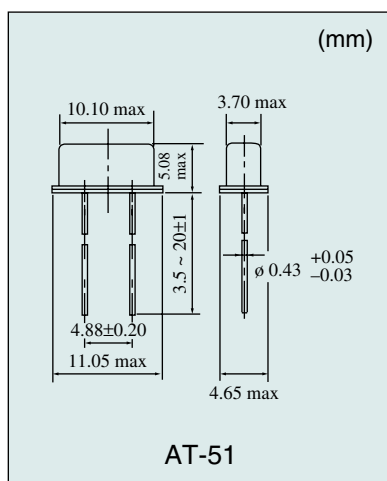
■ Specification

Item	Type	AT-51, AT-51CD2	
Frequency Range		3.1875 ~ 28.63636 MHz	26 ~ 75 MHz
Overtone		Fundamental	3rd overtone
Frequency Tolerance (25±3°C)		± 50 × 10 ⁻⁶	
Temperature Characteristics (in reference to +25°C)		± 50 × 10 ⁻⁶	
Operating Temperature Range		-10 ~ +60°C	
Equivalent Series Resistance		※ See Table	
Drive Level		500 μW (3.541MHz max) 50 μW (3.541 ~ 28.63636MHz) (1000 μW max)	500 μW(1000 μW max)
Standard Load Capacitance		16pF	Series
Operable Temperature Range		-40 ~ +85°C	

Typical Frequency (MHz)

Fundamental	3.579545	3.6864	4.0	4.194304	4.332	4.433619	4.5	4.9152
	6.0	7.2	7.3728	7.68	8.0	9.8304	10.0	10.25
	11.0592	12.0	13.824	14.31818	16.0	16.9344	17.734475	18.432
	20.0	24.576	25.0	27.0	28.63636	33.8688	36.864	61.5

■ Dimensions



※ Table Equivalent Series Resistance (Ω)

Overtone	Frequency Range (MHz)	Equivalent Series Resistance (Ω)
Fundamental	3.1875 ~ 3.2	400 max
	3.2 ~ 3.5	250 max
	3.5 ~ 4.0	150 max
	4.0 ~ 4.5	120 max
	4.5 ~ 5.0	100 max
	5.0 ~ 6.0	80 max
	6.0 ~ 8.0	75 max
	8.0 ~ 10.0	60 max
	10.0 ~ 12.0	50 max
	12.0 ~ 28.63636	40 max
3rd overtone	26.0 ~ 35.0	140 max
	35.0 ~ 48.0	100 max
	48.0 ~ 75.0	80 max