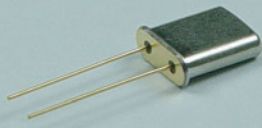


# CRYSTAL UNIT

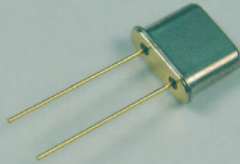
## UM-1, UM-5, UM-4

- UM type package
- AT cut available
- Tight tolerance / stability
- Wide temperature range
- Frequencies to 200.000 MHz available
- Pb-free and RoHS compliance

UM-1



UM-5



### UM TYPE

#### ELECTRICAL SPECIFICATIONS

Frequency Range	7.000 to 200.000MHz
Operating Temperature Range	-10 to +60°C(STD), -20 to +70°C, or specify
Storage Temperature Range	-40 to +85°C
Frequency Tolerance (at 25°C)	± 10, ± 15, ± 20(STD), ± 30, ± 50ppm, or specify
Frequency stability Over Operating Temperature Range	See Table1 in page 4 ± 10, ± 15, ± 20(STD), ± 30, ± 50ppm
Load Capacitance(CL)	18pF(STD), Custom CL≥10pF or Series Resonant
Drive Level	0.01 to 100μW
Shunt Capacitance(Co)	7.0pF max.
Aging (at 25°C)	± 3.0ppm/year max.
Insulation Resistance	500MΩ min. at 100VDC

#### EQUIVALENT SERIES RESISTANCE(ESR)

Frequency Range(MHz)	ESR(Ω MAX.)	Mode of Oscillation	Package
7.000 ~ 9.999	80	Fundamental	UM-1
10.000 ~ 15.999	60	Fundamental	UM-1 / UM-5 / UM-4
16.000 ~ 60.000	30 / 40 / 50	Fundamental	UM-1 / UM-5 / UM-4
30.000 ~ 79.999	80 / 80	3rd Overtone	UM-1 / UM-5
80.000 ~ 150.000	80 / 80 / 80	3rd Overtone	UM-1 / UM-5 / UM-4
80.000 ~ 200.000	100 / 100	5th Overtone	UM-1 / UM-5

#### MECHANICAL DIMENSIONS

