

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

### *Through Hole Type Crystals*

|                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Frequency Range              | 5.000 ~ 230.000 MHz                                                       |
| Oscillation Mode             | Fundamental, 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> Overtone |
| Frequency Tolerance          | ±5ppm, ±10ppm, ±15ppm, ±20ppm @+25°C                                      |
| Frequency Stability          | ±5ppm, ±10ppm, ±15ppm, ±20ppm                                             |
| Operating temperature range  | 0°C ~ +70°C, -40°C ~ +85°C,                                               |
| Equivalent series resistance | As per Chart below                                                        |
| Load Capacitance             | Customer Specified                                                        |
| Drive Level                  | 500 µ W (1m W Max.)                                                       |

All specifications are subject to change without notice.

Option: \*Tighter Tolerance, Tighter Stability, Extended Temperature

#### *Equivalent Series Resistance :*

| Frequency (MHz) | Equivalent Series Resistance(Ω) | Oscillation Mode         |
|-----------------|---------------------------------|--------------------------|
| 5.000~5.999     | 180                             | Fundamental              |
| 6.000~7.999     | 120                             | Fundamental              |
| 8.000~9.999     | 80                              | Fundamental              |
| 10.000~13.999   | 50                              | Fundamental              |
| 14.000~17.999   | 40                              | Fundamental              |
| 18.000~40.000   | 30                              | Fundamental              |
| 25.000~90.000   | 60                              | 3 <sup>rd</sup> Overtone |
| 70.000~150.000  | 80                              | 5 <sup>th</sup> Overtone |
| 130.000~230.000 | 120                             | 7 <sup>th</sup> Overtone |

