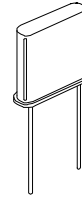




UM Crystal Series



- Miniature Metal Thru-Hole Crystal
- Available in 3 heights, UM1: 8.1mm, UM4: 4.8mm, UM5: 6.0mm and as Surface Mount Gull Wing: UM1G

10.000 MHz – 150.00 MHz

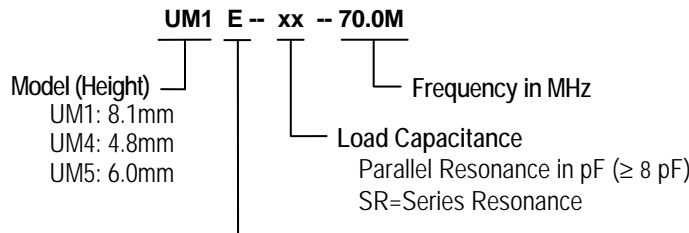
Standard Specifications

Calibration Frequency Tolerance at 25°C	± 30 PPM is standard, tighter tolerances available
Operating Temperature Range (OTR)	0 to +70°C is standard, but can be extended to -40 to +85°C
Frequency Stability (FS) over OTR	± 50 PPM is standard, see below for tighter tolerances available per OTR options
Drive Level	50 mW is standard, customer may specify
Aging at 25°C	± 5 PPM per year is standard, customer may specify ± 1 PPM
Shunt Capacitance	7 pF maximum
Pullability	

May be specified by customer in terms of frequency shift required over a certain range of load capacitance (e.g. +100 PPM from CL=12 to CL=18 pF) or as motional capacitance (f F)

Temperature Range	Tightest FS
-10 to +60°C	± 3 PPM
-20 to +70°C	± 5 PPM
-30 to +80°C	± 10 PPM
-40 to +85°C	± 20 PPM

Part Numbering Guide



Special Specifications (choose all that apply)

- Blank: Std Operating Temperature Range (0 to +70°C)
- E: Extended Operating Temperature Range (- 40 to +85°C)
- G: Gull Wing Surface Mount Package (UM1 only)

ESR Values

Oscillation Mode	Frequency Range (MHz)	Maximum ESR (Ohms)
Fundamental	10.000 – 14.999	60
AT Cut	15.000 – 37.000	35
3rd Overtone	25.000 – 90.000	45
AT Cut	60.000 – 150.000	100

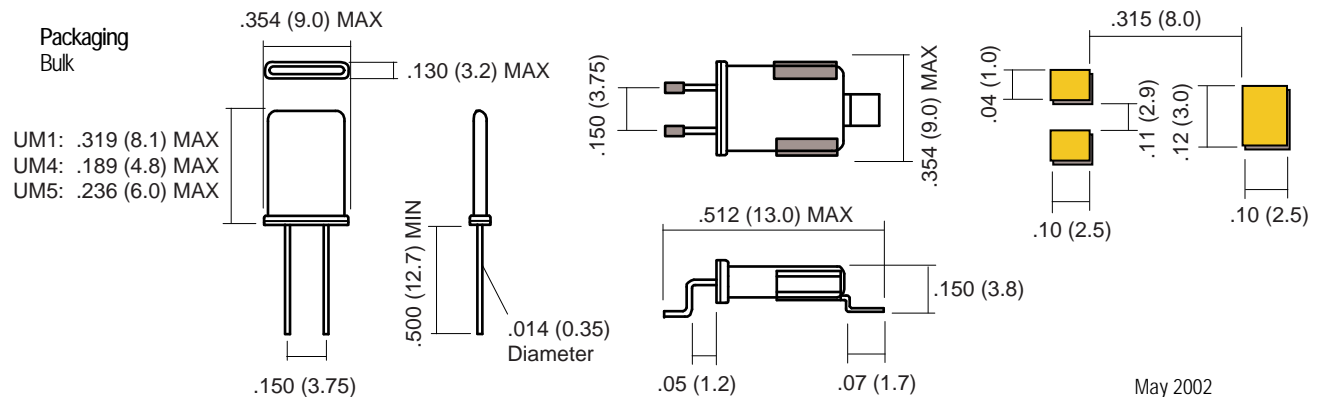
Consult factory for lower ESR

Consult factory for available frequencies and specs.

Not all options available for all frequencies. A special part number may be assigned.

Mechanical: inches (mm) not to scale Gull Wing - UM1G Solder Pads

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.



May 2002