EUROQUARTZ

UM-1SMD amd UM-5SMD Crystals

SMD form of UM-1 & UM-5 Crystals 1.0MHz to 200.0MHz

- **Tight tolerance and stability, ideal for comms. applications**
- **AT-Cut round crystal blank, optimized for low harmonics**
- **Available up to 200MHz using 5th overtone mode**
- **Annealed and pre-aged for low frequency drift**
- **Surface mount assembly**

RoHS

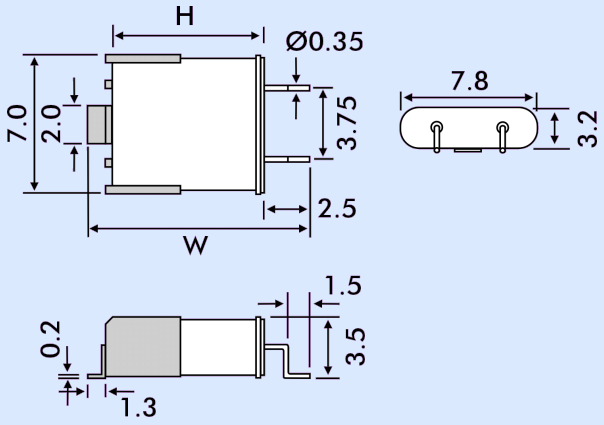
DESCRIPTION

UM-1SMD and UM-5SMD crystals are standard UM-1 and UM-5 crystals with ormed leads and fitted with a clip to enable surface mounting. This offers the benefits of maintaining a highly specified crystal while facilitating surface mount assembly.

SPECIFICATION

Frequency Range	
UM-1SMD:	1.0MHz to 200MHz
UM-5SMD:	10MHz to 200MHz
Oscillation Mode:	*See table*
Calibration Tolerance at 25°C	
SL-Cut (<1.3MHz):	from ±50ppm
AT-Cut (>4.0MHz):	from ±3ppm
Frequency Tolerance	
SL-Cut:	from ±100ppm -10° to +60°C
AT-Cut:	from ±3ppm 0° to +50°C
Shunt Capacitance (C0):	4pF typical, 7pF maximum
Load Capacitance (CL):	Series or from 8pF to 32pF (*Customer specified CL*)
Ageing:	±3ppm maximum, 1st year, ±1ppm per year thereafter.
Drive Level:	100µWatts typ., 500µWatts max.
Crystal Holder:	Resistance-weld hermetic seal
Supply format:	Bulk pack
RoHS Status:	RoHS Compliant and pB free

OUTLINE & DIMENSIONS



Dimension	H	W
UM-1SMD	8.0±0.2	11.8±0.2
UM-5SMD	6.0±0.2	9.8±0.2

FREQUENCY, OSCILLATION MODE, ESR

UM-1SMD

Frequency Range MHz	Crystal Cut/ Oscill. Mode	ESR Ω Max.
1.0 ~1.2	SL Fund.	5k
6.0 ~ 6.9	AT Fund.	100
7.0 ~ 7.9	AT Fund.	90
8.0 ~ 8.9	AT Fund.	80
9.0 ~ 10.9	AT Fund.	60
11.0 ~ 12.9	AT Fund.	40
13.0 ~ 45.0	AT Fund.	25
30.0 ~ 50.0	AT 3rd o.t.	40
50.1 ~ 100.0	AT 3rd o.t.	50
80.0 ~ 200.0	AT 5th o.t	80

UM-5SMD

Frequency Range MHz	Crystal Cut/ Oscill. Mode	ESR Ω Max.
10.0 ~ 11.9	AT Fund.	60
12.0 ~ 14.9	AT Fund.	50
15.0 ~ 35.0	AT Fund.	30
35.1 ~ 90.0	AT 3rd o.t.	60
90.0 ~ 135.0	AT 3rd o.t	40
90.0 ~ 159.0	AT 5th o.t.	100
160.0 ~ 200.0	AT 5th o.t.	80

PART NUMBER FORMAT

Example: 8.000MHz UM-1SMD/10/10/-20+70/32/ 80R

- Frequency in MHz
- Package UM-1SMD or UM-5SMD
- Calibration tolerance at 25°C (±ppm)
- Temperature Stability over temp. range (±ppm)
- Operating Temp. Range (°C) *(Lower and upper limits)*
- Load Capacitance *(Either SR for series or CL in pF)*
- Equivalent Series Resistance *(Optional - use when special value is required)*

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