

**6D** (UM-1)

[ 7.8×3.2×8.0 mm ]

**6E** (UM-5)

[ 7.8×3.2×6.0 mm ]

**Thru-hole Type**

Tolerance

±10ppm ~ ±50ppm

Frequency Range

3MHz~200MHz

## Features

- Resistance welder type crystal units
- Wide frequency range from 3MHz to 200MHz
- A great number of standard frequencies
- Excellent aging characteristics
- Uniform frequency tuning range and modulation sensitivity
- Applications: TV, STB, LCDM, Communication, Mobile radio communications, Cable modem, etc
- RoHS Compliant / Pb-Free



## Standard Specifications

| Item / Type                   | 6D (UM-1)  | 6E (UM-5) |
|-------------------------------|--|-----------|
| Frequency Range               | 3.579545~200 MHz(Fund. /3rd /5th /7th)               |           |
| Load Capacitance              | Series of Parallel (8 to 32pF) resonance, or specify |           |
| Drive Level                   | 100 μW typical (500 μW max.)                         |           |
| Frequency Tolerance (at 25°C) | ± 10ppm, ±20ppm, ±30ppm, ±50ppm, or specify          |           |
| Aging                         | ±3ppm / Year (max.)                                  |           |
| Storage Temperature Range     | -55°C~+125°C   |           |

## ESR (Equivalent Series Resistance)

| Fundamental     |            | 3rd Overtone    |           | 5th / 7th Overtone |            |
|-----------------|------------|-----------------|-----------|--------------------|------------|
| Frequency Range | E.S.R      | Frequency Range | E.S.R     | Frequency Range    | E.S.R      |
| 3~5MHz          | 100 Ω max. | 24~35MHz        | 40 Ω max. | 100~200MHz         | 100 Ω max. |
| 5~6MHz          | 90 Ω max.  | 35~100MHz       | 80 Ω max. |                    |            |
| 6~7MHz          | 80 Ω max.  |                 |           |                    |            |
| 7~10MHz         | 60 Ω max.  |                 |           |                    |            |
| 10~16MHz        | 50 Ω max.  |                 |           |                    |            |
| 16~24MHz        | 40 Ω max.  |                 |           |                    |            |

## Frequency stability Vs Operating temperature range

| Temp. (°C) | ppm |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|
|            | ±5  | ±10 | ±15 | ±20 | ±25 | ±30 | ±50 |
| -10~+60    | ○   | ○   | ○   | ○   | ○   | ○   | ○   |
| -20~+70    | ▲   | ○   | ○   | ○   | ○   | ○   | ○   |
| -40~+85    | ×   | ▲   | ○   | ○   | ○   | ○   | ○   |

▲: Conditional

○: Available

×: Not available

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**6E** (UM-5)

[ 7.8×3.2×6.0 mm ]

Thru-hole Type

Tolerance

±10ppm ~ ±50ppm

Frequency Range

4MHz~200MHz

Outline Dimensions (Unit: mm)

