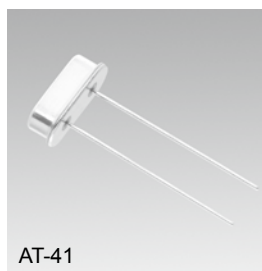


## AT-41 / AT-41CD2

For OA / AV

A highly stable and reliable low-height crystal unit with a metallic package, also suitable for surface mounting.

- Compatible with surface mounting.
- Airtight metal package ensures high-reliability.
- Taping package is for customer automatic loading operation.
- AT-41CD2 meets the requirements for re-flow profiling using lead-free solder.



AT-41



AT-41CD2

Pb  
Free

RoHS Compliant  
Directive 2011/65/EU

### Specifications

| Item  | Model | AT-41                      |                  |             | AT-41CD2                   |                  |             |
|---|-------|----------------------------|------------------|-------------|----------------------------|------------------|-------------|
| Nominal Frequency   |       | 3 to 37MHz                 | 26 to 60MHz      | 60 to 75MHz | 3 to 37MHz                 | 26 to 60MHz      | 60 to 75MHz |
| Overtone Order  |       | Fundamental                | 3rd overtone     |             | Fundamental                | 3rd overtone     |             |
| Frequency Tolerance (25 ±3 °C)  |       | ±20 × 10 <sup>-6</sup>     |                  |             | ±20 × 10 <sup>-6</sup>     |                  |             |
| Frequency versus Temperature Characteristics (with reference to +25 °C) |       | ±30 × 10 <sup>-6</sup>     |                  |             | ±30 × 10 <sup>-6</sup>     |                  |             |
| Operating Temperature Range   |       | -10 to +70 °C              |                  |             | -10 to +70 °C              |                  |             |
| Storage Temperature Range   |       | -40 to +85 °C              |                  |             | -40 to +85 °C              |                  |             |
| Equivalent Series Resistance  |       | Refer to *1                |                  |             | Refer to *1                |                  |             |
| Level of Drive  |       | Refer to *2 (Max. 1000 μW) |                  |             | Refer to *2 (Max. 1000 μW) |                  |             |
| Load Capacitance  |       | 16 pF                      | Series resonance |             | 16 pF                      | Series resonance |             |
| Specifications Number   |       | STD-LPH-9                  | STD-LPH-10       | STD-LPH-11  | LN-L-0002                  | STD-LPH-3        | STD-LPH-5   |

#### \*1 Equivalent Series Resistance

| Overtone Order | Nominal Frequency (MHz) | Equivalent Series Resistance max. [Ω] |
|----------------|-------------------------|---------------------------------------|
| Fundamental    | 3 to 3.2                | 400                                   |
|                | 3.2 to 3.5              | 200                                   |
|                | 3.5 to 4                | 150                                   |
|                | 4 to 4.5                | 120                                   |
|                | 4.5 to 5                | 100                                   |
|                | 5 to 6                  | 80                                    |
|                | 6 to 8                  | 70                                    |
|                | 8 to 10                 | 60                                    |
|                | 10 to 12                | 50                                    |
| 3rd overtone   | 12 to 37                | 40                                    |
|                | 26 to 35                | 140                                   |
|                | 35 to 48                | 100                                   |
|                | 48 to 75                | 80                                    |

#### \*2 Drive Level

| Overtone Order | Nominal Frequency (MHz) | Drive Level (µW) |
|----------------|-------------------------|------------------|
| Fundamental    | 3 to 5                  | 500              |
|                | 5 to 37                 | 50               |
| 3rd overtone   | 26 to 60                | 500              |
|                | 60 to 75                | 10               |

### Dimensions

