

HC49/U CRYSTAL

AB

 RoHS/RoHS II Compliant



11.5 x 5.0 x 13.46mm

Moisture Sensitivity Level (MSL) – This product is not Moisture Sensitive - MSL = 1

FEATURES:

- High precision availability
- Resistance welded
- Ideal for large pullability application
- Wide frequency range

APPLICATIONS:

- CPU, Memory
- Computer, printer
- Data communication (1MHz)
- Data input - output machine (1MHz)

STANDARD SPECIFICATIONS:

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|---|---|---------|---------|-------|-----------------------|
| Frequency Range | 1.8432 | | 160.000 | MHz | |
| Operation Mode | Fundamental | | | | 1.8432MHz – 24.000MHz |
| | 3 rd Overtone | | | | 24.01MHz – 66.00MHz |
| | 5 th Overtone | | | | 66.01MHz – 122.00MHz |
| | 7 th Overtone | | | | 122.01MHz – 160.00MHz |
| Operating Temperature | 0 | | +70 | °C | See options |
| Storage Temperature | -55 | | +125 | °C | |
| Frequency Tolerance @+25°C | -50 | | +50 | ppm | See options |
| Frequency Stability over the operating temperature (ref. to +25°C) | -100 | | +100 | ppm | See options |
| Equivalent series resistance (R1) | See table 1 below | | | Ω | |
| Shunt capacitance (C0) | | | 7 | pF | |
| Load capacitance (CL) | | 18 | | pF | See options |
| Drive Level | | 100 | 1000 | μW | |
| Aging@25°C±3°C | | | ±5 | ppm | First year |
| Insulation Resistance | 500 | | | M Ω | @100Vdc±15V |
| Drive level dependency (DLD), minimum 7 points tested: from 1μW to 500μW. | Change in frequency (Maximum - Minimum) over DLD range < ±10ppm; Change in ESR (Maximum - Minimum) over DLD range < 25% of Max ESR value; Maximum ESR over DLD range < Max ESR value. | | | | |

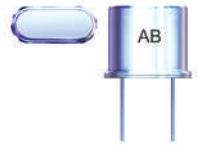
Table 1

| FREQUENCY (MHz) | Operation Mode | ESR (Ω) max | |
|-----------------|-----------------------|-----------------|----|
| 1.8432-1.999 | HC49/U Fundamental | 750 | |
| 2.000-2.399 | | 550 | |
| 2.400-2.999 | | 350 | |
| 3.000-3.699 | | 200 | |
| 3.700-4.199 | | 100 | |
| 4.200-4.899 | | 70 | |
| 4.900-5.999 | | 50 | |
| 6.000-7.999 | | 40 | |
| 8.000-9.999 | | 35 | |
| 10.000-12.499 | | 30 | |
| 12.50-50.00 | | 25 | |
| 24.00-66.00 | | HC49/U (3rd OT) | 40 |
| 66.01-122.00 | | HC49/U (5th OT) | 80 |
| 122.01-160.00 | HC49/U (7th OT) | 120 | |

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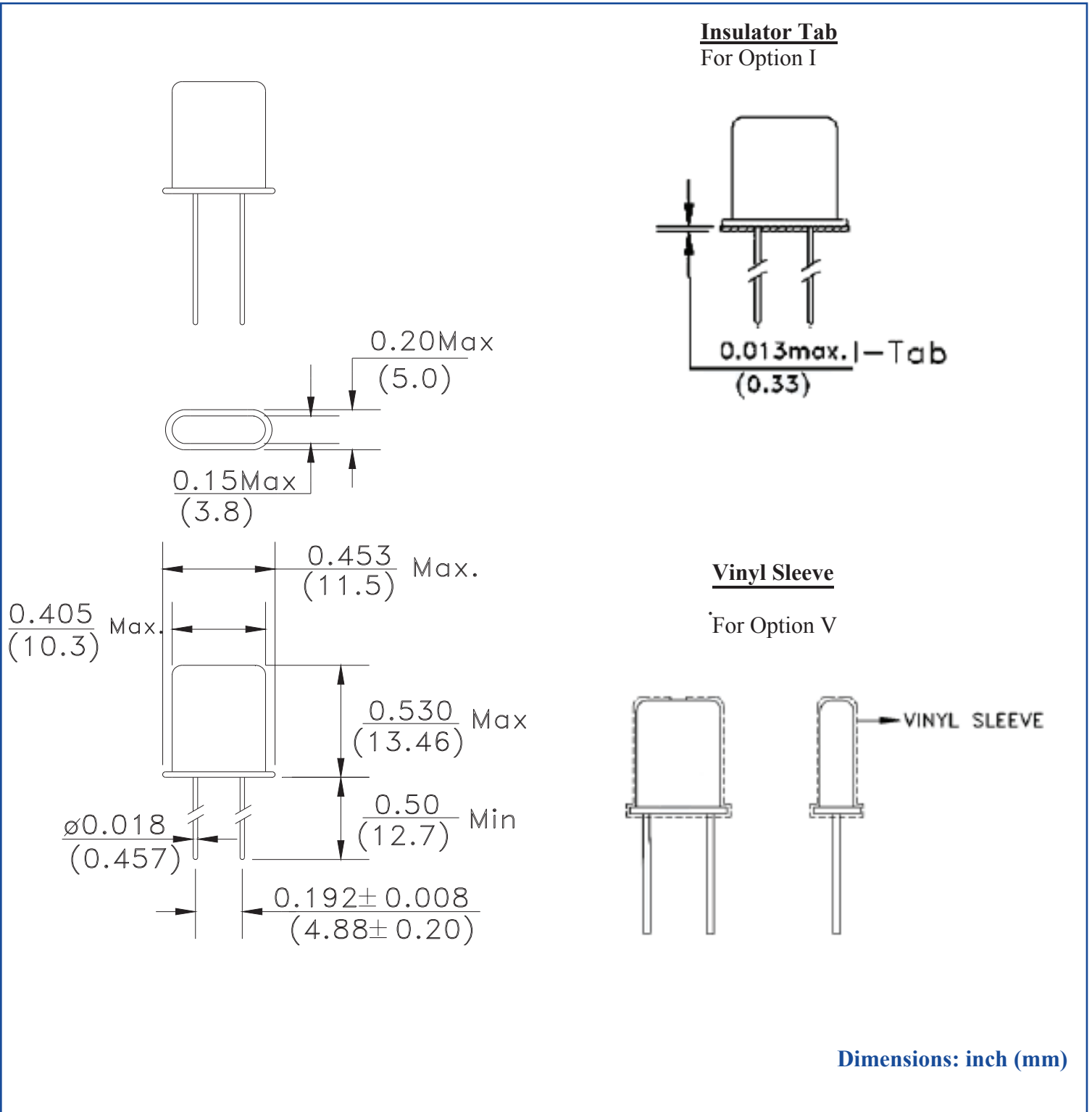
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OUTLINE DRAWING:



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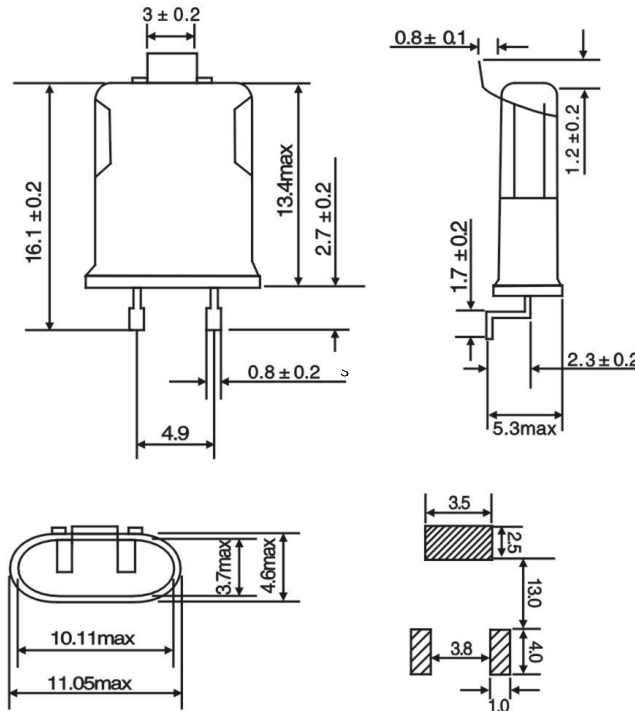
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Pb RoHS/RoHS II Compliant

OUTLINE DIMENSION CONTD...

Metal Jacket Formed Leads

For Option MJ

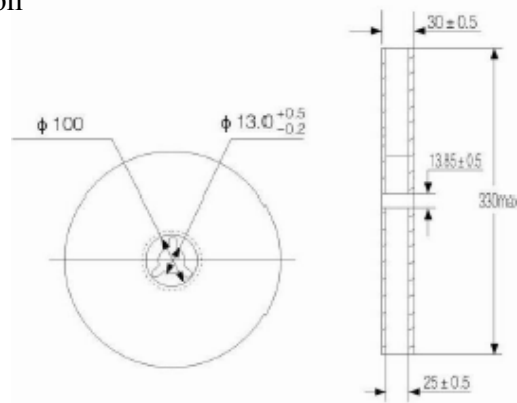
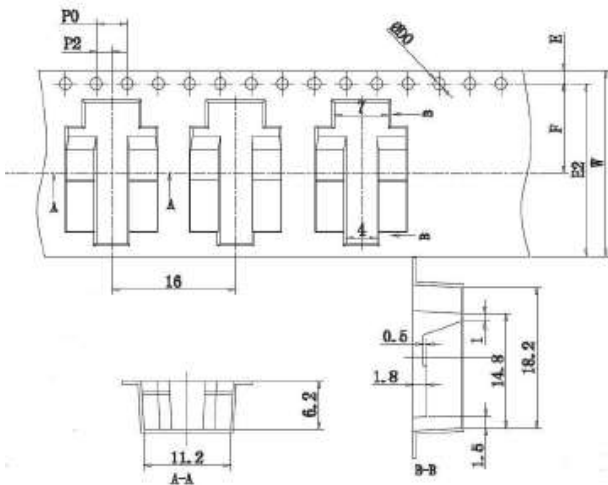


Dimensions: mm

TAPE & REEL:

T: 1,000 pcs/reel

Tape and reel packaging applies only to MJ (metal jacket) option



Dimensions: mm

| E | E2 | F | P2 | ØD0 | P0 | W |
|-----------|------------|-----------|-----------|-----------|-----------|------------|
| 1.75±0.10 | 22.25 MIN. | 11.5±0.10 | 2.00±0.10 | 1.50±0.10 | 4.00±0.10 | 24.00±0.30 |

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