

HC49/US (AT49) LOW PROFILE SMD MICROPROCESSOR CRYSTAL

ABLS3

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable



RoHS
Compliant



11.4 x 4.7 x 2.5/2.6mm

FEATURES:

- Suitable for RoHS compliant reflow
- Low height reduced to 2.5/2.6mm
- Tight stability & extended temperature options

APPLICATIONS:

- Computers, Modems, Microprocessors
- Wireless Applications

STANDARD SPECIFICATIONS:

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|---|---|---------|-----------|-------|---|
| Frequency Range | 3.579545 | ----- | 24.000000 | MHz | Fundamental AT (Standard) |
| | 24.000001 | ----- | 50.000000 | | Fundamental AT or BT (See options) |
| | 24.000001 | ----- | 70.000000 | | 3 rd Overtone (Standard) |
| Operation Mode | Fundamental or 3 rd Overtone | | | | |
| 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) | -50 | ----- | +50 | ppm | See options (For BT cut, ±100ppm max.at -10° C to +60° C only) |
| Equivalent series resistance (R1) | See table 1 below | | | Ω | |
| Shunt capacitance (C0) | ----- | ----- | 7 | pF | |
| Load capacitance (CL) | ----- | 18 | ----- | pF | Standard (See options if other than STD) |
| Drive Level | ----- | 100 | 1000 | μW | |
| Aging | -5 | ----- | +5 | ppm | @25°C±3°C First year |
| Insulation Resistance | 500 | ----- | ----- | MΩ | @ 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: ESR

| FREQUENCY (MHz) | ESR (Ω) |
|--------------------------|---------|
| 3.579545 - 4.999 (Fund.) | 180 |
| 5.000 - 5.999 (Fund.) | 120 |
| 6.000 - 7.999 (Fund.) | 100 |
| 8.000 - 8.999 (Fund.) | 80 |
| 9.000 - 9.999 (Fund.) | 60 |
| 10.000 - 15.999 (Fund.) | 50 |
| 16.000 - 50.000 (Fund.) | 40 |
| 24.01 - 31.999 (3rd O/T) | 100 |
| 32.000 - 70.00 (3rd O/T) | 80 |



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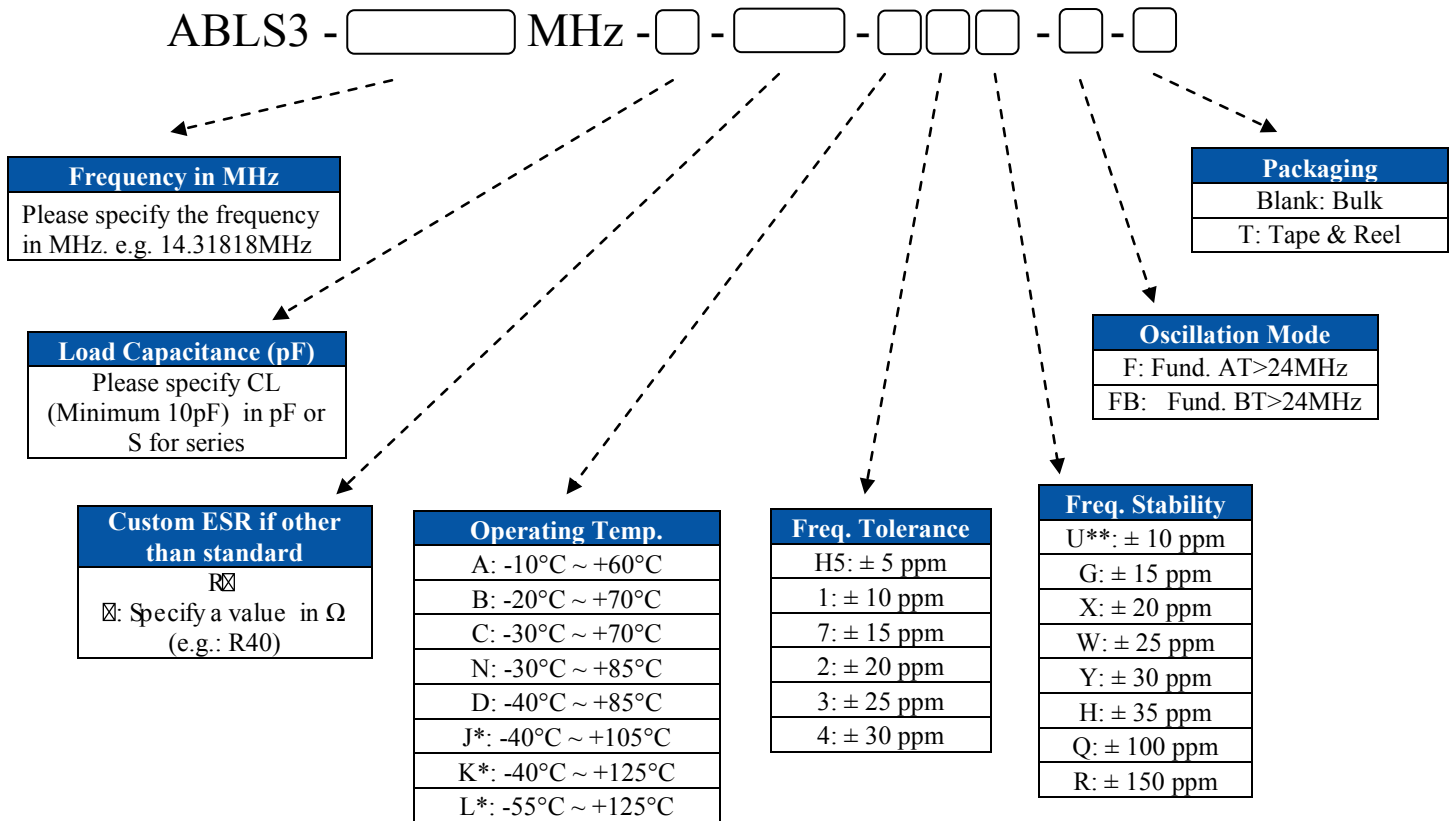


Reduced height
to 2.5/2.6mm

11.4 x 4.7 x 2.5/2.6mm

➤ OPTIONS & PART IDENTIFICATION:

(Left blank if standard)



NOTE: Fundamental BT frequency stability ± 100ppm max. at -10° C to +60° C only.

* Frequency stability ±50ppm, ±100ppm, ±150ppm only.

** -10 to +60C only.

Contact ABRACON for tighter frequency stability.



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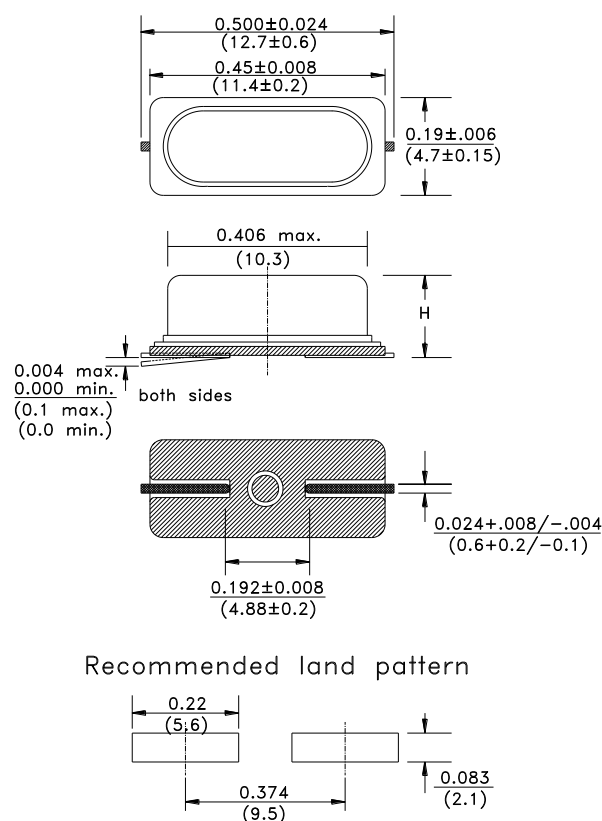
RoHS
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Reduced height
to 2.5/2.6mm

11.4 x 4.7 x 2.5/2.6mm

OUTLINE DRAWING:

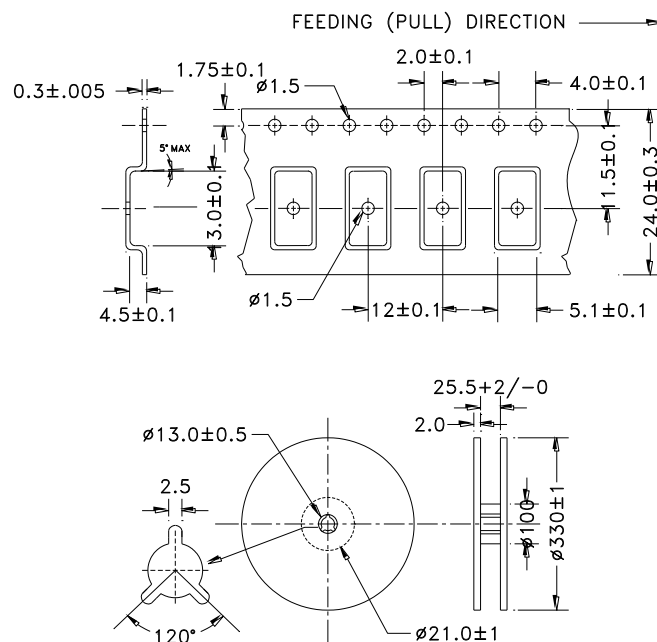


H: 2.5mm max for frequency 6MHz or higher
 2.6mm max for frequency lower than 6MHz

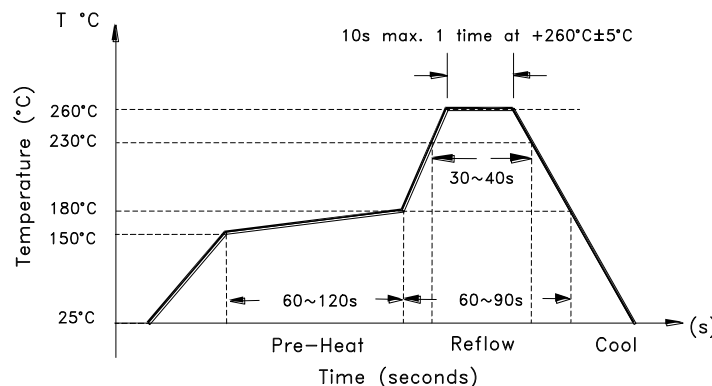
Dimensions: inches (mm)

TAPE & REEL:

T = tape and reel (1000pcs/reel)



REFLOW PROFILE:



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