



**THE DATASHEET OF
ABLSG-10.000MHZ-D2Y-T**



HC/49US (AT49) 3RD LEAD CASE-GROUNDED SMD LOW PROFILE CRYSTAL



ABLSG



**RoHS
Compliant**

11.4 x 4.7 x 4.2mm

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

FEATURES:

- 3rd Lead is Grounded, Ideal for EMI Sensitive Applications
- IR-reflow capable
- Low height reduced to 4.2mm
- Tight stability & extended temperature available

APPLICATIONS:

- EMI sensitive applications
- Computers, Modems, Microprocessors
- Medical Electronics
- Wireless Applications

STANDARD SPECIFICATIONS:

| PARAMETERS | |
|---|---|
| ABRACON P/N | ABLSG Series |
| Frequency | 3.579545 MHz to 75 MHz |
| Operation Mode | AT cut (Fundamental or 3rd OT) or BT cut 3.579545MHz - 24.0MHz (Fundamental: Standard) 24.01 - 75.00MHz (3rd- Overtone: Standard) 24.01MHz - 50.00MHz (Fund. AT or BT: Please specify. See options) |
| Operating Temperature | 0°C to + 70°C (see options) |
| Storage Temperature | - 55°C to + 125°C |
| Frequency Tolerance | ± 50 ppm max. (see options) |
| Frequency Stability over the Operating Temp. (Ref to +25°C) | ± 50 ppm max. (see options) |
| Equivalent Series Resistance | See Table 1 |
| Shunt Capacitance C ₀ | 7pF max. |
| Load Capacitance C _L | 18pF (see options) |
| Drive Level | 1 mW max., 100µW typical |
| Aging at 25°C Per Year | ± 5ppm max. |
| Insulation Resistance | 500 MΩ min at 100Vdc ± 15V |
| Spurious Responses: | -3dB max. |
| Drive level dependency (DLD) | From 1µW to 500µW (minimum 7 points tested) |

TABLE 1: ESR

| FREQUENCY (MHz) | ESR (Ω) |
|--------------------------|---------|
| 3.579 - 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 |

OPTIONS & PART IDENTIFICATION:

(Left blank if standard) **ABLSG - [] MHz - [] - R [] - [] - [] - [] - []**

Frequency in MHz
e.g. 3.579545MHz
14.31818MHz
26.000MHz

Load Capacitance
Please specify CL in pF or S for Series (8 to 33pF)
Please contact ABRACON for other values

ESR
Specify a value in Ω

Operating Temp.
A: -10°C ~ +60°C
B: -20°C ~ +70°C
C: -30°C ~ +70°C
N: -30°C ~ +85°C
D: -40°C ~ +85°C
J(**): -40°C to +105°C
K(**): -40°C to +125°C
L(**): -55°C to +125°C

Freq. Tolerance
H5: ± 5 ppm
1: ± 10 ppm
7: ± 15 ppm
2: ± 20 ppm
3: ± 25 ppm
4: ± 30 ppm

Freq. Stability
U: ± 10 ppm (*)
G: ± 15 ppm (**)
X: ± 20 ppm
W: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
Q: ± 100 ppm (****)
R: ± 150 ppm

Packaging
Blank: Bulk
T: Tape & Reel

Mode
F: Fund.AT for >24MHz
FB: Fund.BT for >24MHz

- * 10 to +60C only.
- ** Option A, E, B, and 0 to +70C only.
- *** Frequency stability ±50ppm, ±100ppm, ±150ppm only. Contact ABRACON for tighter frequency or stability requirement.
- **** For Fundamental BT, frequency stability ±100ppm max. at 10°C to +60°C only.

ABRACON IS
ISO9001:2008
CERTIFIED



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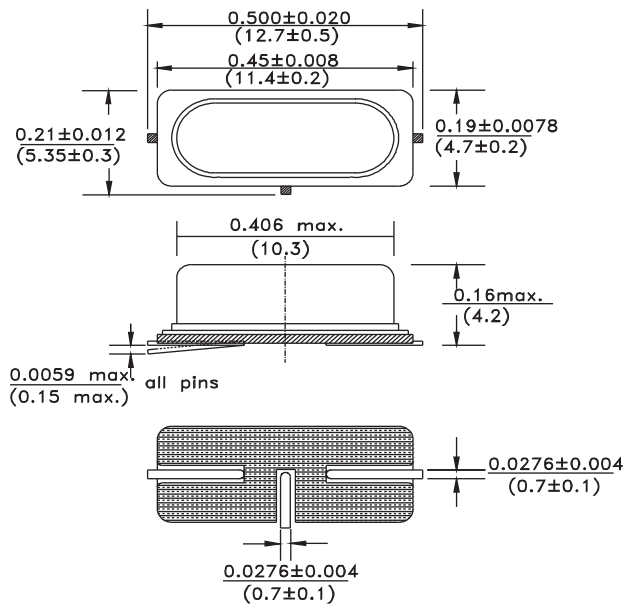
11.4 x 4.7 x 4.2mm

ABLSG

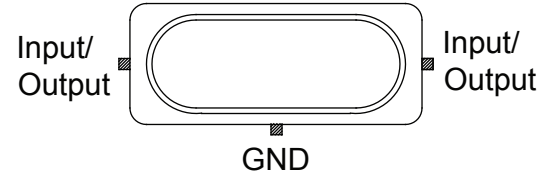


RoHS
Compliant

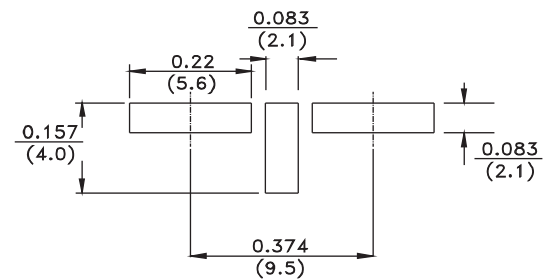
OUTLINE DRAWING:



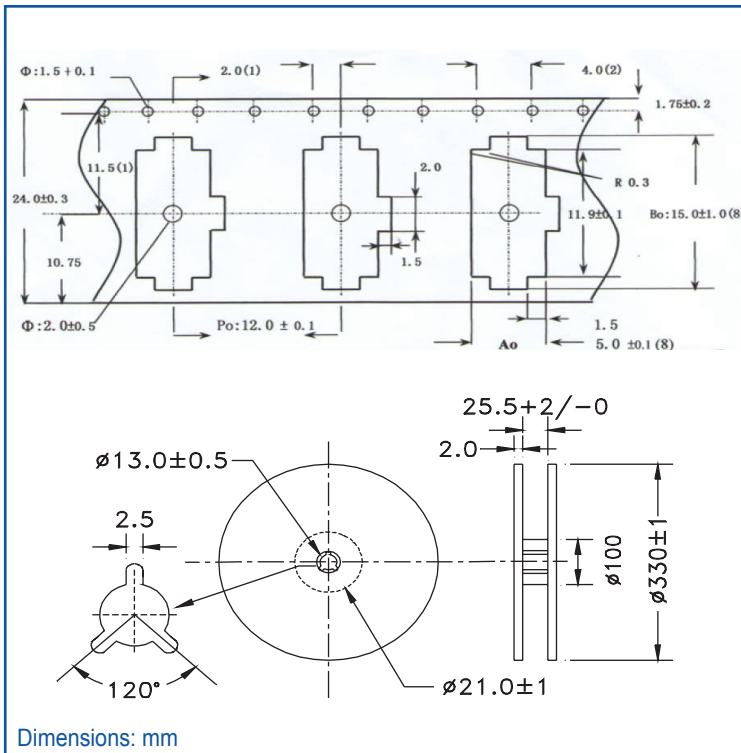
Pin Configuration



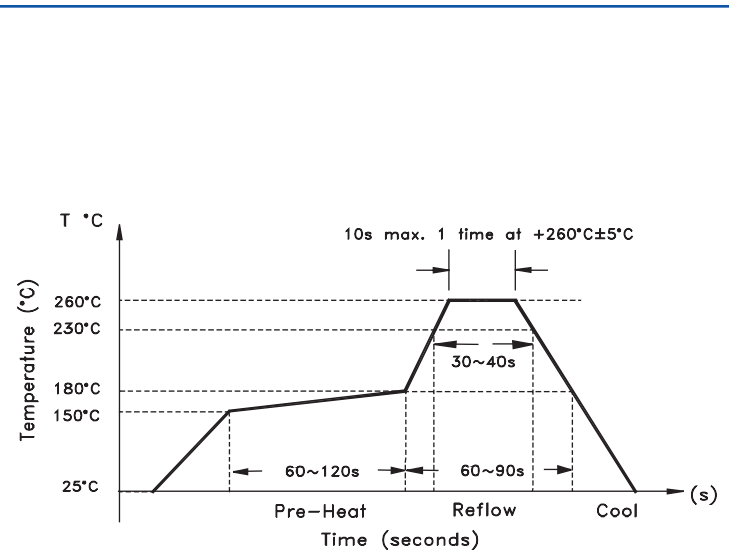
Recommended land pattern



TAPE & REEL:



REFLOW PROFILE:



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- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management