

# CERAMIC SMD CRYSTAL



ABM3B

5.0 X 3.2 X 1.1mm



**RoHS**  
Compliant

ABM3B

## FEATURES:

- Fundamental mode.
- Suitable for reflow.
- Tight Stability available.
- Ceramic package and metal lid assures high precision and reliability.
- Seam sealing.

## APPLICATIONS:

- Cellular telephones, Pagers.
- Communication and Test equipment.
- High Density applications.
- PCMCIA and wireless applications.

## STANDARD SPECIFICATIONS:

### PARAMETERS

|  |   |
|--|---|
| ABRACON P/N  | ABM3B Series  |
| Frequency Range  | 8.0 MHz - 50.0 MHz (Fundamental)<br>50.1 MHz - 125 MHz (3rd overtone) |
| Operation Mode   | Fundamental or 3rd overtone   |
| Operating Temperature  | -10°C to +60°C (see options)  |
| Storage Temperature  | -40°C to +85°C  |
| Frequency Tolerance @ +25°C  | ± 50 ppm max. (see options)   |
| Frequency Stability over the Operating Temperature (Ref to + 25°C) | ± 50 ppm max. (see options)   |
| Equivalent Series Resistance                                       | See table 1   |
| Shunt Capacitance C0   | 7 pF max.   |
| Load Capacitance CL  | 18 pF (see options)   |
| Drive Level  | 100 µW max., 10 µW typical  |
| Aging (First Year) @ 25°C ± 3°C                                    | ± 5ppm max.   |
| Insulation Resistance  | 500 MΩ min at 100Vdc ± 15 V   |

TABLE 1- Standard ESR

| Frequency (MHz)  | ESR(Ω) max | Operational mode |
|------------------|------------|------------------|
| 8.000 - 9.999    | 200        | Fundamental      |
| 10.000 -11.999   | 100        | Fundamental      |
| 12.000 - 15.999  | 70         | Fundamental      |
| 16.000 - 50.000  | 50         | Fundamental      |
| 50.001 - 80.000  | 60         | 3rd Overtone     |
| 80.001 - 125.000 | 60         | 3rd Overtone     |

## OPTIONS AND PART IDENTIFICATION:

ABM3B□ - Frequency - □ - R□□□ - □ - □ - □ - □

| Height (mm) |           |
|-------------|-----------|
| Blank       | 1.1mm max |
| 1           | 0.8mm max |

| Load Capacitance                                  |
|---|
| Please specify CL (6 to 32) in pF or S for Series |

\*Consult with ABRACON for CL value under 6pF.)

| Custom ESR                            |
|---------------------------------------|
| RXXX (Value in Ω).<br>If it is custom |

| Operating Temp. |                 |
|-----------------|-----------------|
| E               | 0°C to +70°C    |
| B               | -20°C to +70°C  |
| C               | -30°C to +70°C  |
| N               | -30°C to +85°C  |
| D               | -40°C to +85°C  |
| *               | -40°C to +105°C |
| *               | -55°C to +125°C |

\* Frequency stability Z only

| Freq. Tolerance |          |
|-----------------|----------|
| 1               | ± 10 ppm |
| 7               | ± 15 ppm |
| 2               | ± 20 ppm |
| 3               | ± 25 ppm |
| 4               | ± 30 ppm |

| Packaging |               |
|-----------|---------------|
| Blank     | Bulk          |
| T         | Tape and Reel |

| Freq. Stability |           |
|-----------------|-----------|
| U**             | ± 10 ppm  |
| G***            | ± 15 ppm  |
| X               | ± 20 ppm  |
| W               | ± 25 ppm  |
| Y               | ± 30 ppm  |
| H               | ± 35 ppm  |
| Z               | ± 100 ppm |

\*\* Standard temp or options E and B only

\*\*\* Standard temp or options E, B, C and N only.

ABRACON IS  
ISO 9001 / QS 9000  
CERTIFIED



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CORPORATION

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## OUTLINE DRAWING:

Please see Table 2 below for height and chamfer information.



**Note:** Due to the availability of raw materials, this part may be manufactured with the chamfer on pin 4. Be advised that this does not affect the electrical characteristics of the crystal in any way.

## TAPE & REEL:

