



**THE DATASHEET OF
ABM3B-20.000MHZ-10-1-U-T**



CERAMIC SMD CRYSTAL

ABM3B



5.0 X 3.2 X 1.1mm

ABM3B



RoHS
Compliant

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	8.0MHz - 50.0MHz (Fundamental) 50.1MHz - 125MHz (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	Frequency (MHz)	ESR(Ω max)
8.000 - 9.999 (Fund.)	200	16.000 - 50.000 (Fund.)	50
10.000 -11.999 (Fund.)	100	50.001 - 80.000 (3rd OT)	60
12.000 - 15.999 (Fund.)	70	80.001 - 125.000 (3rd OT)	80



5.0 X 3.2 X 1.1mm

ABM3B



OPTIONS AND PART IDENTIFICATION: (Left blank if standard)

ABM3B - MHz - - - - - -

Height (mm)

Blank: 1.1mm max
1: 0.8mm max

Frequency in MHz

e.g. 8.000MHz
14.31818MHz
26.000MHz
125.000MHz

Load Capacitance

Please specify CL(6 to 32pF) in pF or S for Series
Please contact ABRACON for values under 6pF

Custom ESR if other than standard

R□
□: Specify a value in Ω (e.g.: R40)

Operating Temp.

E: 0°C ~ +70°C
B: -20°C ~ +70°C
C: -30°C ~ +70°C
N: -30°C ~ +85°C
D: -40°C ~ +85°C
J****: -40°C ~ +105°C
K****: -40°C ~ +125°C
L*: -55°C ~ +125°C

Freq. Tolerance

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
Z: ± 100 ppm

(*) Option Z only
(**) Standard temp or options E and B only
(***) Standard temp or options E, B, C and N only
(****) Freq. stability ±50ppm and ±100ppm only. Contact ABRACON for tighter freq. stability.

Packaging

Blank: Bulk
T: 1k pcs per reel
T2: 250 pcs per reel

OUTLINE DIMENSIONS:

Please see Table 2 below for height and chamfer information.

Recommended land pattern

0.094 (2.4) x 0.071 (1.8) x 0.16 (4.0) x 0.047 (1.2)

Table 2

	Height (mm)	Chamfer PIN #
ABM3B	1.1mm max	#1 (Default), #4 (See Note)
ABM3B1	0.8mm max	#1 (Default), #4 (See Note)

Chamfer on PIN 1 (Default)

Chamfer on PIN 4 (See Note)

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.

Dimension : Inches (mm)



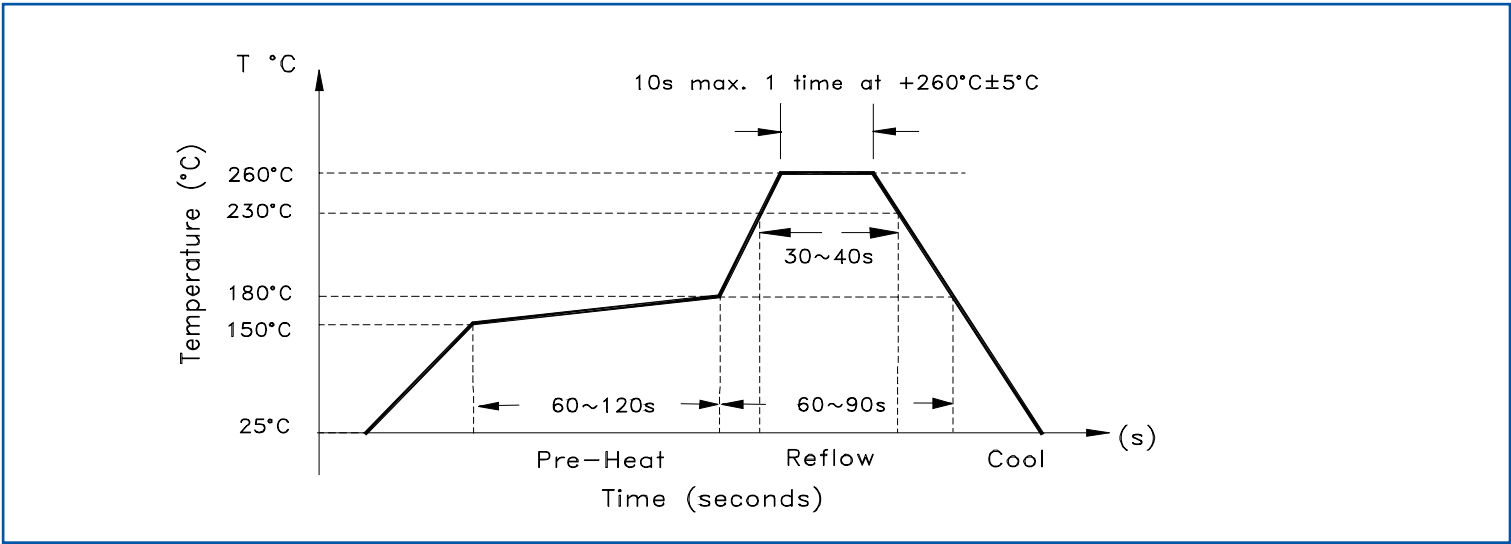
5.0 X 3.2 X 1.1mm

ABM3B



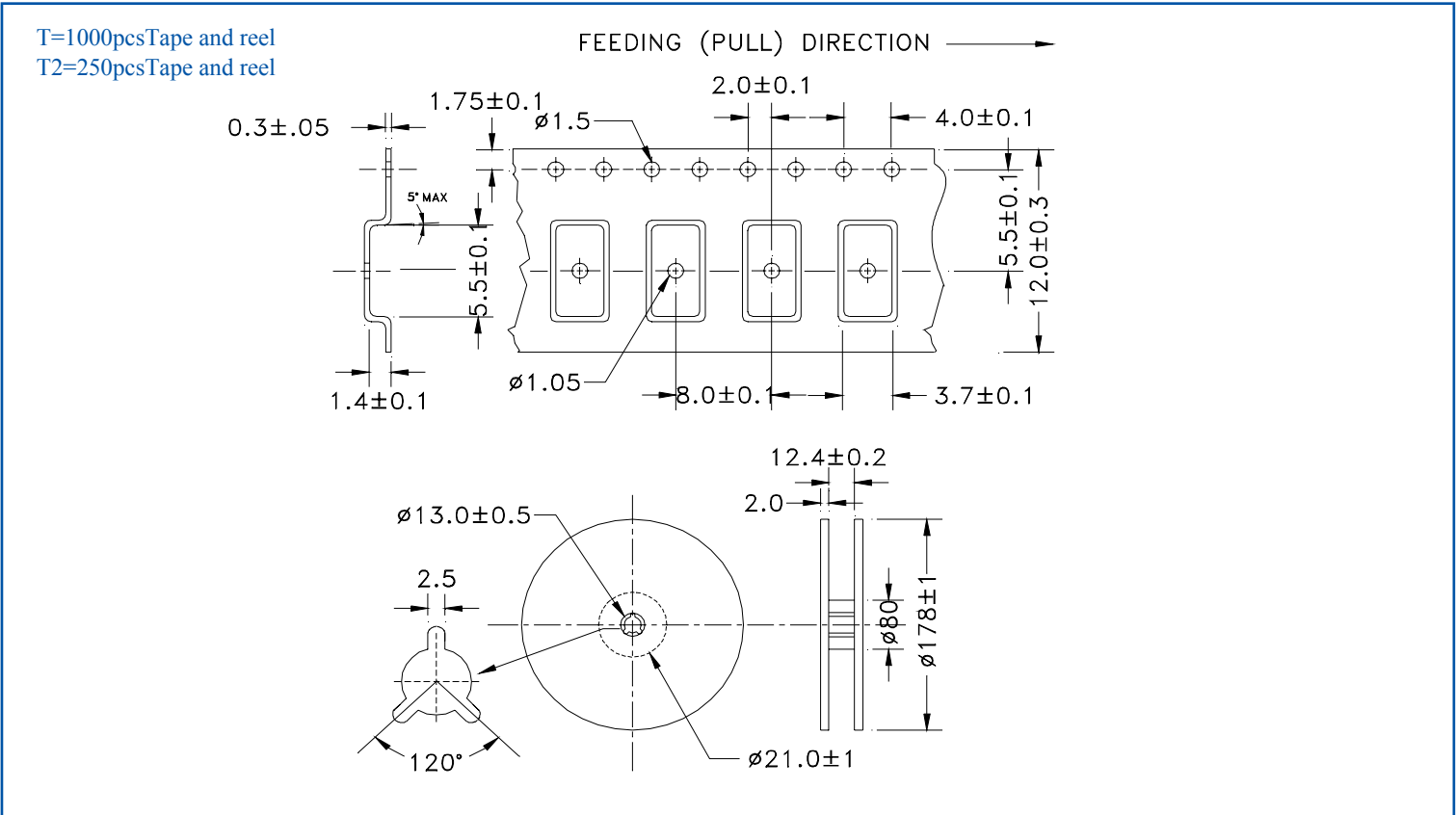
RoHS
Compliant

REFLOW PROFILE:



TAPE & REEL:

T=1000pcsTape and reel
T2=250pcsTape and reel



Dimension : mm

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2 Faraday, Suite# B | Irvine | CA 92618 Revised: 08.25.15
Ph. 949.546.8000 | Fax. 949.546.8001
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