

CERAMIC SMD CRYSTAL

ABM3

Pb in Glass, exemption 7C-I per RoHS II Directive
2011/65/EU Annex

RoHS/RoHS II Compliant.

Smaller package alternative for ABM7 series



5.0 X 3.2 X 1.3mm

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

FEATURES:

- AT-cut fundamental or 3rd OT mode
- Suitable for RoHS reflow profile
- Tight Stability available ± 10
- Ceramic package hermetically glass sealed assures high precision and reliability.

APPLICATIONS:

- Cellular telephones, pagers
- Communication and test equipment
- PCMCIA and wireless applications

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8.000		54.000	MHz	Fundamental
	54.100		80.000		3 rd Overtone
Operation Mode	Fundamental or 3 rd Overtone				
Operating Temperature	-10		+60	°C	See options
Storage Temperature	-40		+90	°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
Equivalent series resistance (R1)			140	Ω	$8.000 \leq F < 9.000$ (Fund)
			120		$9.000 \leq F < 10.000$ (Fund)
			60		$10.000 \leq F < 16.000$ (Fund)
			40		$16.000 \leq F < 20.000$ (Fund)
			30		$20.000 \leq F < 30.000$ (Fund)
			25		$30.000 \leq F \leq 54.000$ (Fund)
			60		$54.000 < F \leq 80.000$ (3 rd OT)
Shunt capacitance (C0)			7	pF	
Load capacitance (CL)		18		pF	Standard (See options if other than STD)
Drive Level		10	100	μ W	
Aging	-5		+5	ppm	@25°C $\pm$ 3°C First year
Insulation Resistance	500			M Ω	@ 100Vdc $\pm$ 15V

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OPTIONS AND PART IDENTIFICATION: (Left blank if standard)

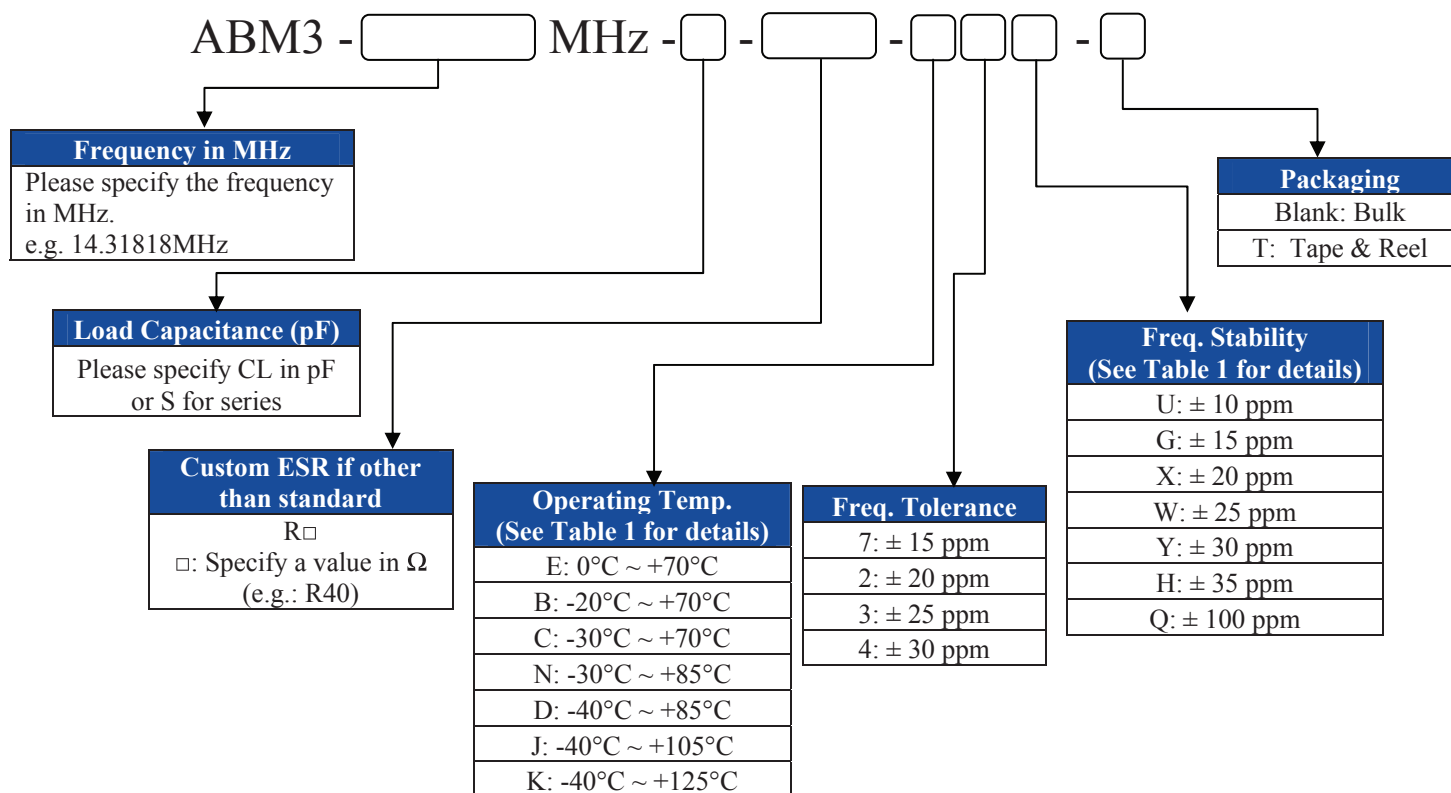


Table 1 Available Combinations of Operating Temp. and Freq. Stability

Operating Temp.	Freq. Stability							
	U:±10ppm	G:±15ppm	X:±20ppm	W:±25ppm	Y:±30ppm	H:±35ppm	Std:±50ppm	Q:±100ppm
Std: -10°C ~ +60°C	√	√	√	√	√	√	√	√
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							√	√

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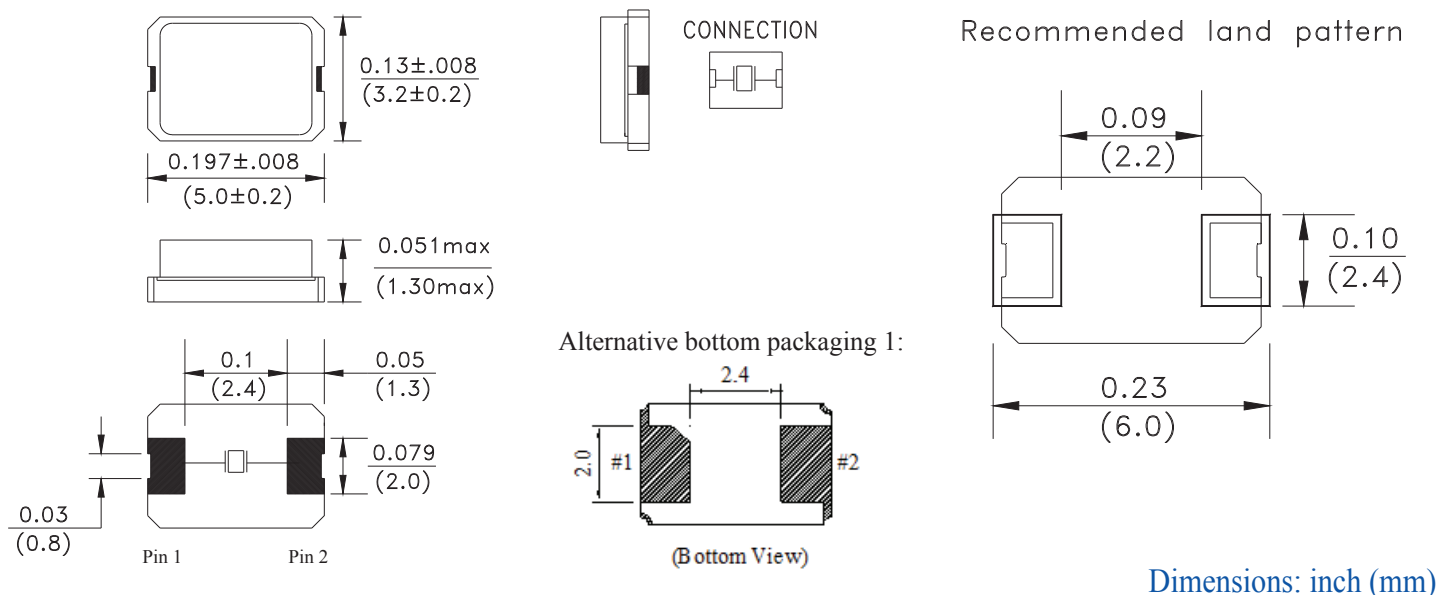
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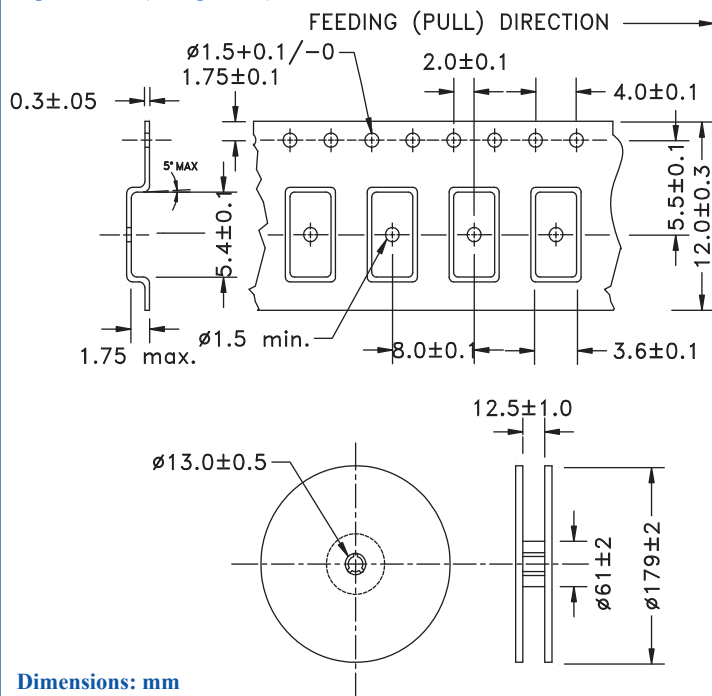
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OUTLINE DRAWING:

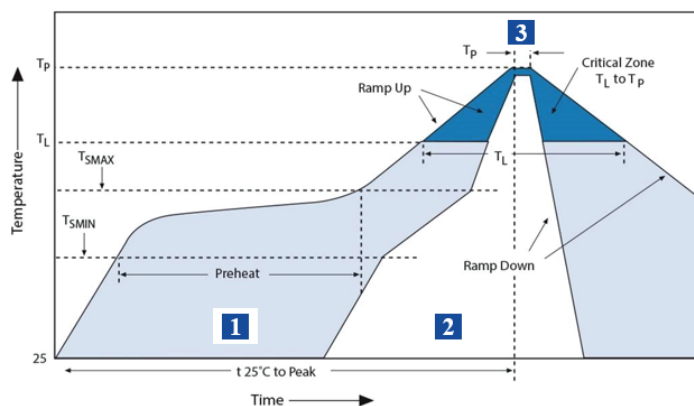


TAPE & REEL:

Tape and reel (1,000pcs/reel)



REFLOW PROFILE



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ $150^\circ\text{C} \sim 180^\circ\text{C}$	60 ~ 120 sec.
2	Reflow	T_L 230°C	30 ~ 40 sec.
3	Peak heat	T_p $260^\circ\text{C} \pm 5^\circ\text{C}$	10 sec. MAX.

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