

Surface Mount Microprocessor Crystal



12.5 x 4.95 x 5.1mm

ABS M3A



RoHS / RoHS II Compliant

Moisture Sensitivity Level – MSL – N/A

(The ABS M3A Series is a Hermetically Sealed device and not moisture sensitive)

FEATURES:

- Excellent all-purpose surface-mount crystal.
- Four pad land pattern compatible with common plastic molded designs.

APPLICATIONS:

- Home electronics
- Computers, modems, and communications
- Clock applications
- Microprocessors

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	3.579545		60	MHz	
Operation Mode	3.579545MHz ~ 30.00MHz: Fundamental, AT				Standard
	30.01MHz ~ 39.99MHz: Fundamental, BT				Standard
	40.00MHz ~ 60.00MHz: 3 rd OT				Standard
	40.00MHz ~ 48.00MHz: Fundamental, BT				Option “FB”
Operating Temperature	-10		+60	°C	See options
Storage Temperature	-40		+85	°C	
Frequency Tolerance	-50		+50	ppm	See options
Frequency Stability over the Operating Temperature (ref. to +25°C ± 3 °C)	-100		+100	ppm	See options
Equivalent series resistance (R1)			150	Ω	3.579545MHz ~ 3.999MHz
			120		4.000 MHz ~ 4.999MHz
			90		5.000MHz ~ 6.999MHz
			50		7.000MHz ~ 14.999MHz
			40		15.000MHz ~ 48.000MHZ (Fund.)
			80		40.000MHz ~ 60.000MHz (3 rd OT)
Shunt capacitance (C0)			7.0	pF	
Load capacitance (CL)	18			pF	See options
Drive Level		100	1000	μW	
Aging (per year) @25°C ± 3 °C	-5		+5	ppm	
Insulation Resistance	500			MΩ	@100Vdc±15V

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OPTIONS & PART IDENTIFICATION: (Left blank if standard)

ABSM3 A - MHz - - - - - - -

Height max. (mm)
Blank: 5.1
2: 4.5
3: 3.8

Frequency in MHz
e.g. 14.31818MHz
26.000MHz

Load Capacitance (pF)
Please specify CL in pF or S for series (10pF min) if not standard

Custom ESR if other than standard
R
☐ : Specify a value in Ω if not standard (e.g.: R40)

Packaging
Blank: Bulk
T: 1kpcs/reel

Mode
Blank: Standard
FB: Fund BT for 40MHz $\leq$ F $\leq$ 48MHz

Operating Temp.
Blank: -10°C to +60°C
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

Freq. Tolerance
Blank: ± 50 ppm
1: ± 10 ppm
7: ± 15 ppm
2: ± 20 ppm
3: ± 25 ppm
4: ± 30 ppm

Freq. Stability
Blank: ± 100 ppm
U: ± 10 ppm(*)
G: ± 15 ppm(**)
X: ± 20 ppm
W: ± 25 ppm
Y: ± 30 ppm
H: ± 35 ppm
Z: ± 50 ppm

(*) -10°C to 60°C only.

(**) Temp. option E, B, C, N and -10 to +60°C only

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

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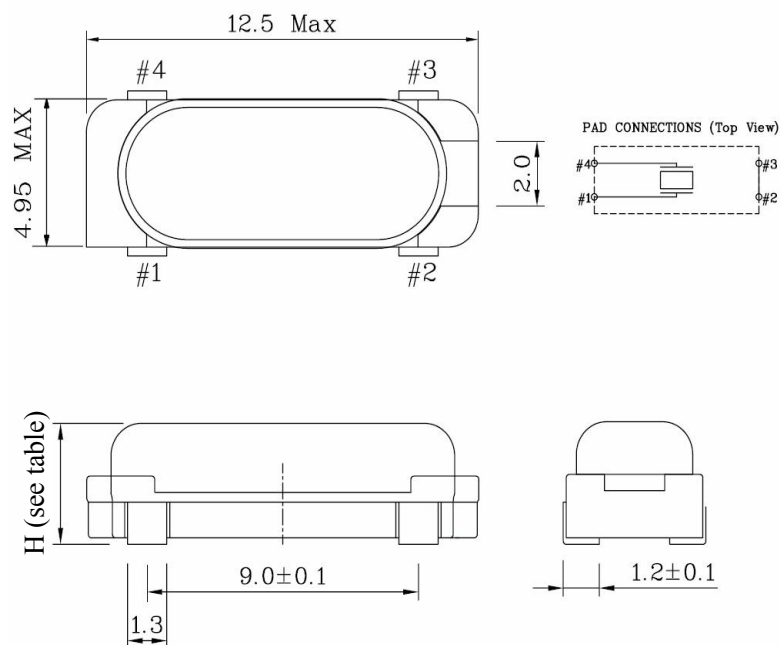
12.5 x 4.95 x 5.1mm

ABSM3A

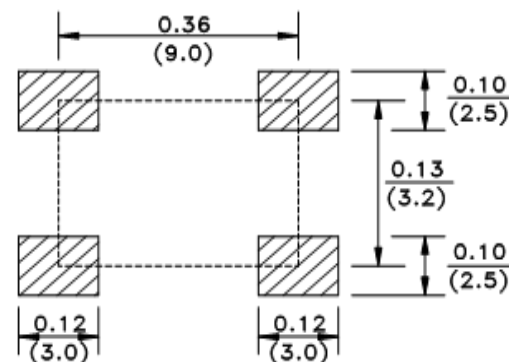


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OUTLINE DIMENSION:



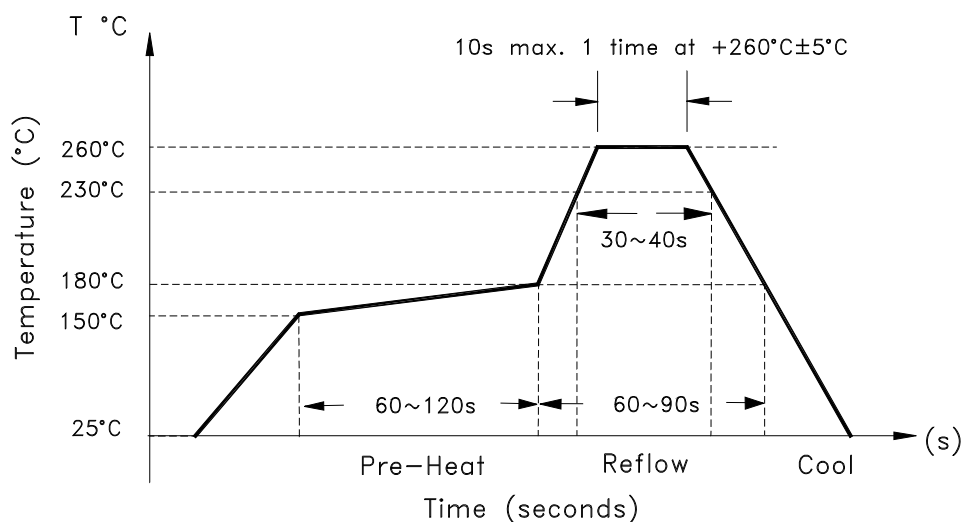
Recommended land pattern



Dimensions: mm

P/N	Height max. (mm)
ABSM3A	5.1
ABSM32A	4.5
ABSM33A	3.8

REFLOW PROFILE:



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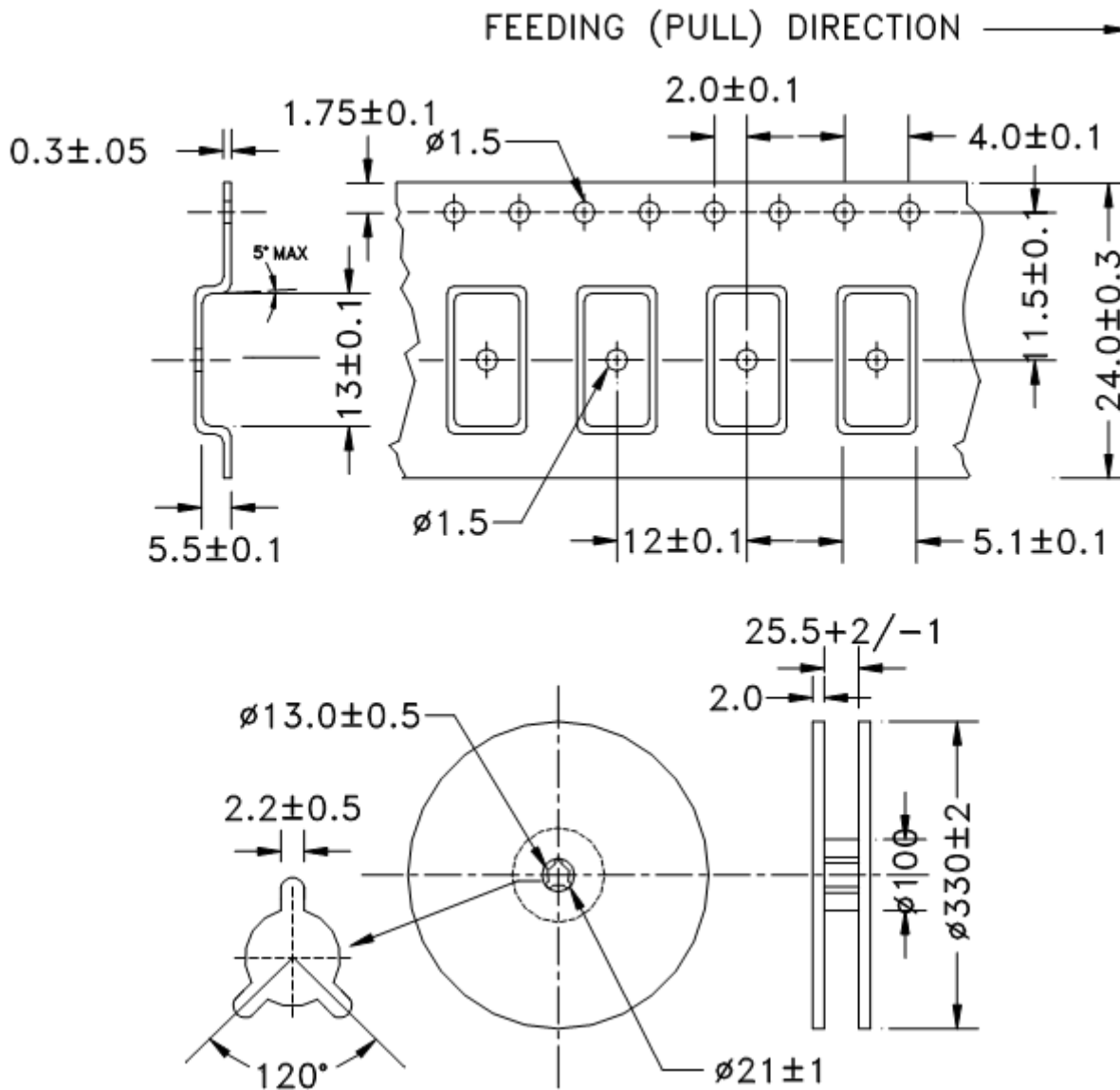
ABSM3A



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TAPE & REEL:

T=Tape and Reel (1000pcs/reel)



Dimensions: mm

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