

ABM8GAIG

Pb in glass
(exempt 7(c) - I per RoHS II 2011/65/EU Annex)

3.2 x 2.5 x 0.8 mm
RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Features

- AEC-Q200 Qualified
- Automotive Grade 1: -40°C to +125°C
- TS16949 Production Line Certified
- PPAP Available Upon Request
- Hermetically Glass-sealed Ceramic Package
- RoHS/RoHS II Compliant

Applications

- Infotainment Systems
- Keyless Entry & Startup
- GPS & Navigation
- Comfort control
- ADAS (Advanced Driver Assistance Systems)
- Vehicle to Vehicle Communication
- LiDAR (Light Detection and Ranging)
- In-vehicle Networking
- Powertrain & Drive Control
- Power Control & Conversion
- Industrial Control & Automation

Electrical Specifications

Parameters	Min.	Typ.	Max.	Units	Notes
Frequency Range	10.000		54.000	MHz	
Operation Mode	Fundamental				
Operating Temperature	-40		+125	°C	Option "blank"; See options
Storage Temperature	-40		+125	°C	
Frequency Tolerance @ +25°C	-50		+50	ppm	Option "blank"; See options
Frequency Stability over the Operating Temperature (ref. to +25°C)	-100		+100	ppm	Option "blank"; See options
Equivalent series resistance (R1)			200	Ω	10.000 – 12.000 MHz
			100		12.000 – 15.999 MHz
			80		16.000 – 19.999 MHz
			60		20.000 – 54.000 MHz
Shunt capacitance (C0)			2.0	pF	
Load capacitance (CL)		10		pF	Option "blank"; See options
Drive Level		10	100	μW	
Aging	-2		+2	ppm	@25°C± 3°C First year
Insulation Resistance	500			MΩ	@100 Vdc ± 15V



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Options and Part Identification (left blank if standard)

ABM8GAIG- **MHz -** - - -

Frequency in MHz
Please specify the frequency in MHz.
(e.g. 14.31818MHz)

Load Capacitance (pF)
Blank: 10pF
If not standard, please specify CL in pF or S for series

Custom ESR if other than standard
R □: Specify a value in Ω (e.g.: R80)

Packaging
Blank: Bulk
T: 1k pcs / reel
T3: 3k pcs / reel

Operating Temp.
Blank: -40°C to +125°C
N: -30°C to +85°C
D: -40°C to +85°C
J: -40°C to +105°C

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

Freq. Stability
Blank: ± 100 ppm
Z: ± 50 ppm
P: ± 45 ppm (*)
F: ± 40 ppm (*)
H: ± 35 ppm (*)
Y: ± 30 ppm (*)
W: ± 25 ppm (*)
X: ± 20 ppm (*)
G: ± 15 ppm (*)

(*) Contact Abracon for Availability

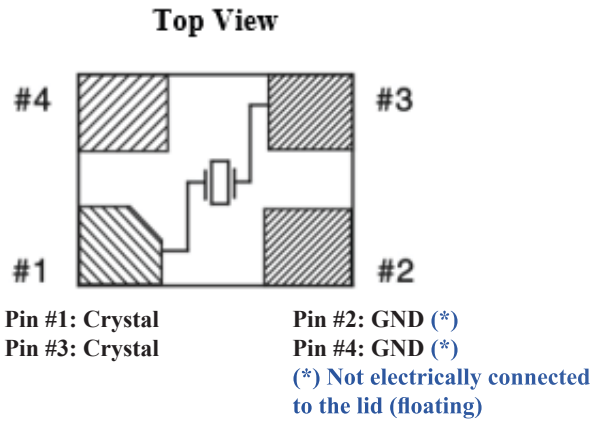
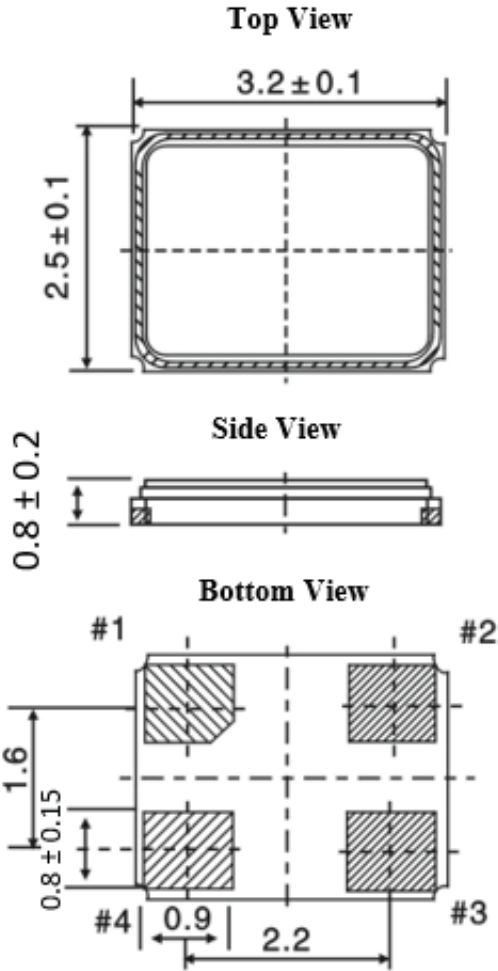


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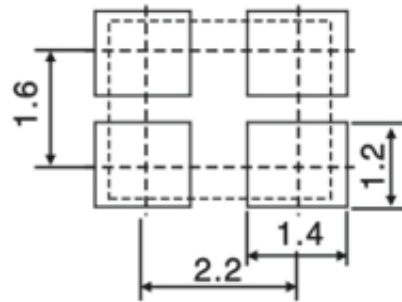
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Mechanical Dimensions



Recommended Land Pattern



Note: Due to availability of raw materials, this part may be manufactured with the chamfer on pin 1 or pin 4. Be advised that this does not affect the electrical characteristics of the crystal in any way.

Dimensions: mm

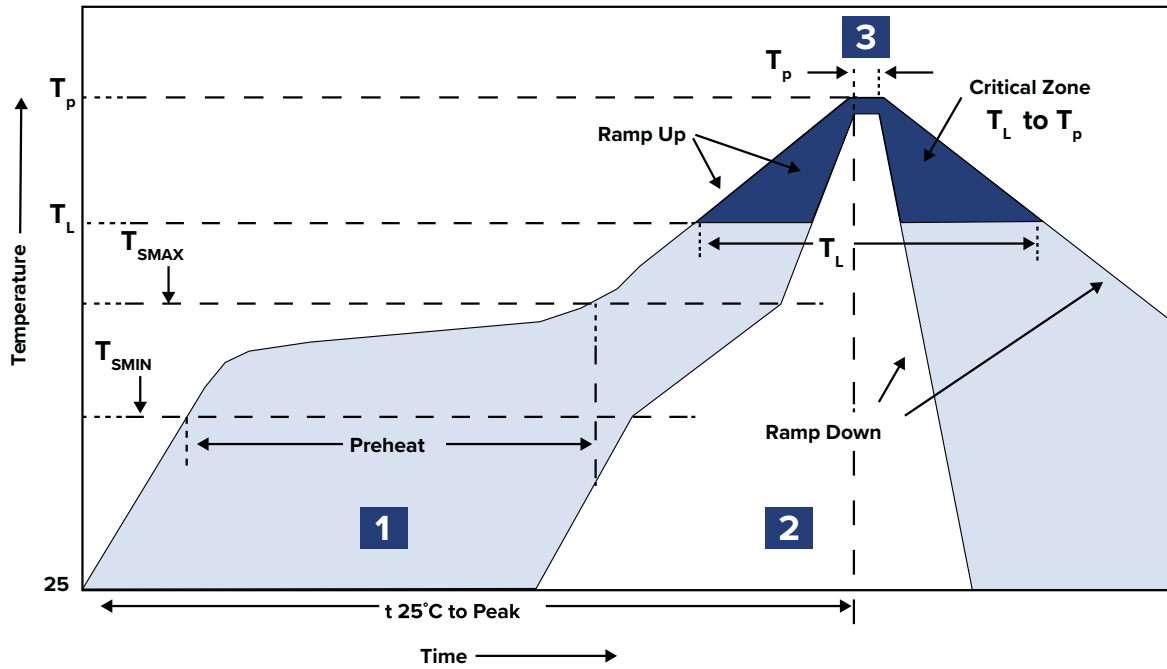


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Reflow Profile



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



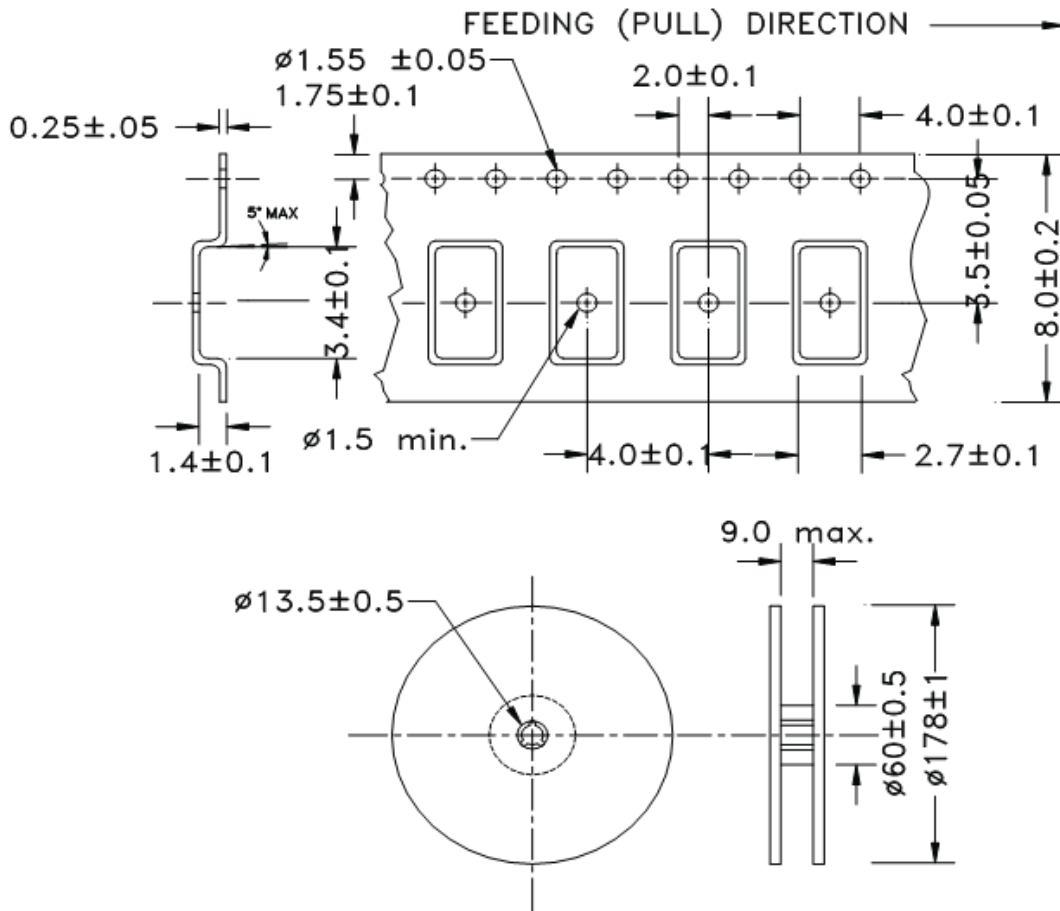
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Packaging

Tape and Reel:
T: 1,000pcs/reel
T3: 3,000pcs/reel



Dimensions: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.