

Automotive & Industrial Grade Miniature Ceramic Base SMD Crystal



ABM11AIG



2.0 x 1.6 x 0.55 mm
RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

Features

- AEC-Q200 Qualified
- Automotive Grade 1: -40°C to +125°C
- Automotive Grade 0: -40°C to +150°C (Available Upon Request)
- TS16949 Production Line Certified
- PPAP Available Upon Request
- Hermetically Seam-sealed Ceramic Package
- RoHS/RoHS II Compliant and Pb free

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	16.000		60.000	MHz	
Operation Mode	Fundamental				
Operating Temperature ^[Note 1]	-40		+125	°C	Option "blank"; See options
	-40		+150		Option "V"; See options
Storage Temperature ^[Note 1]	-40		+125	°C	Option "blank, J, D, N"
	-40		+150		Option "V"
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
	-150		+150		Option "R"; See options
Equivalent series resistance (R1)			150	Ω	16.000 – 19.999 MHz
			100		20.000 – 23.999 MHz
			80		24.000 – 25.999 MHz
			60		26.000 – 40.999 MHz
			50		41.000 – 60.000 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

Note 1: Operating temperature range option -40°C to +150°C only available in select frequencies and electrical performance options. Please contact Abracon for availability.



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 06-13-19

ABRACON IS
 ISO9001-2015
 CERTIFIED

Automotive & Industrial Grade Miniature Ceramic Base SMD Crystal

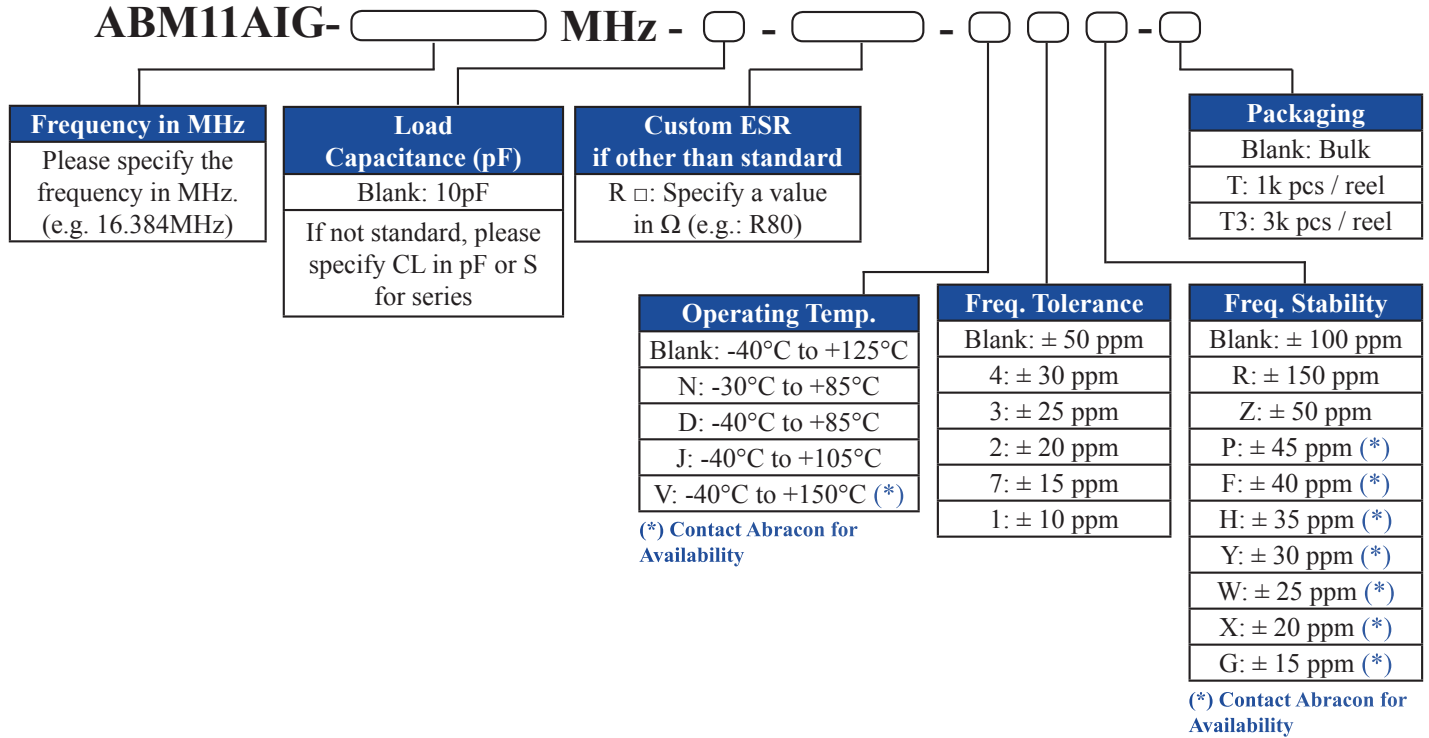


ABM11AIG



2.0 x 1.6 x 0.55 mm
RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

Options and Part Identification (left blank if standard)



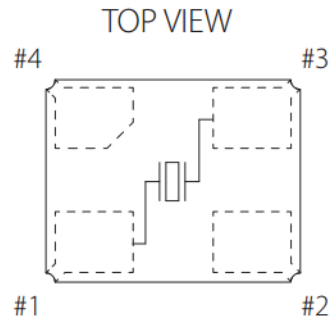
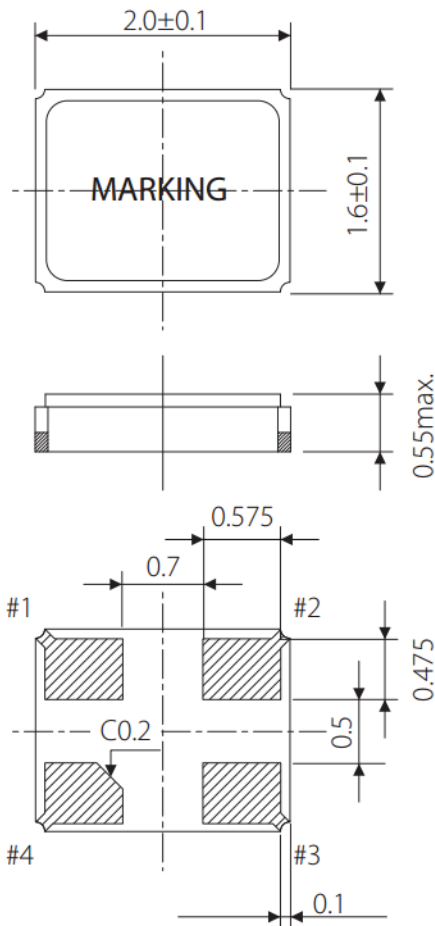


ABM11AIG



2.0 x 1.6 x 0.55 mm
 RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

Mechanical Dimensions

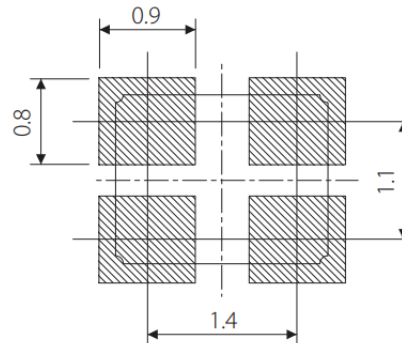


Pin #1: Crystal
 Pin #3: Crystal

Pin #2: GND (*)
 Pin #4: GND (*)

(*) Electrically connected to lid

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

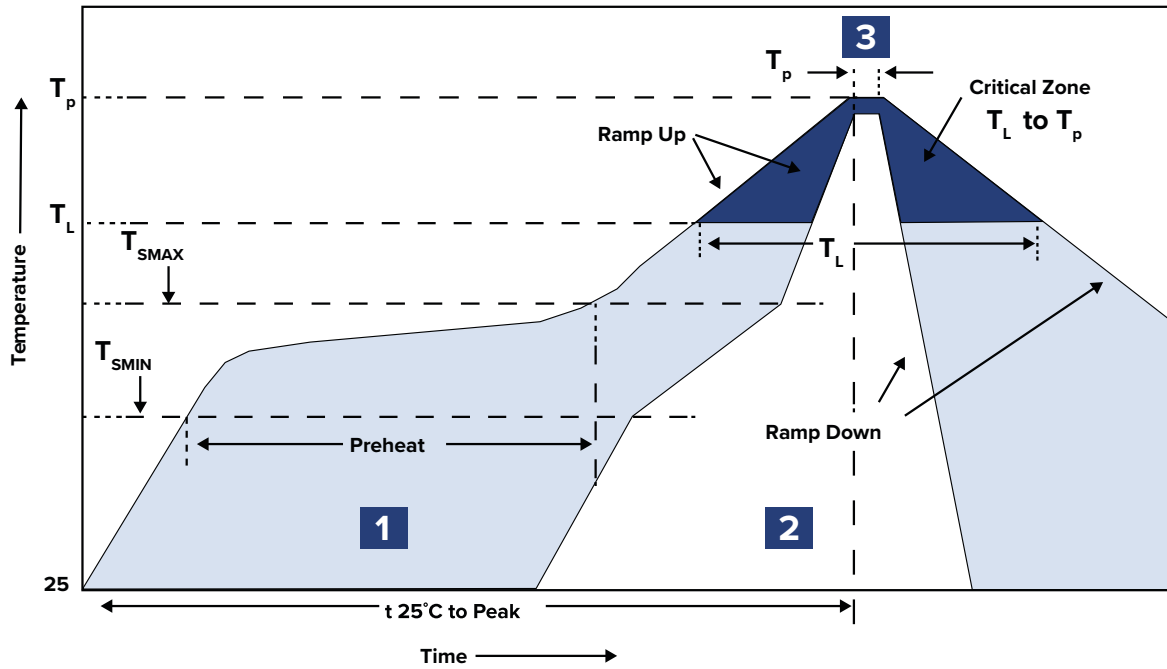


ABM11AIG



2.0 x 1.6 x 0.55 mm
 RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

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



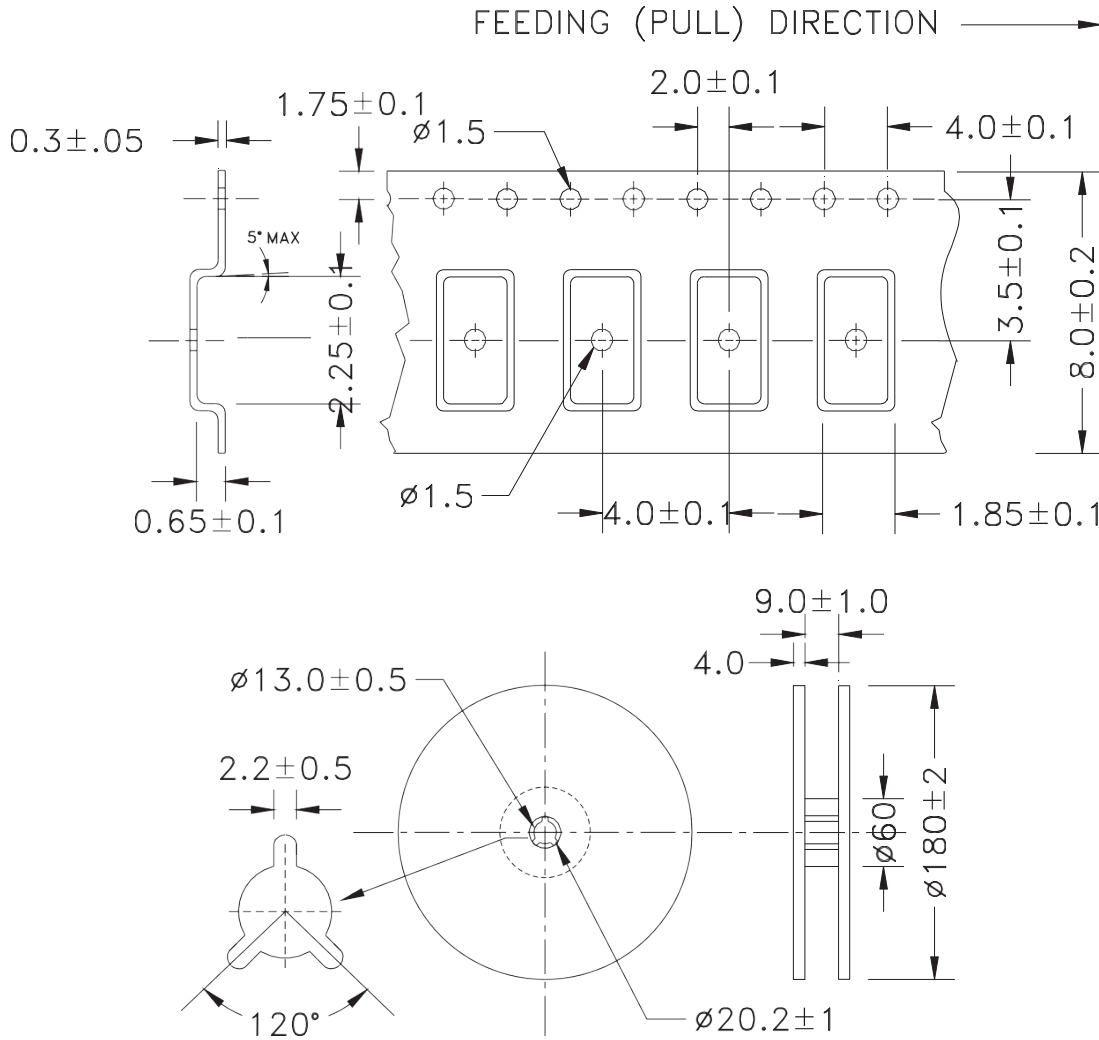
ABM11AIG



2.0 x 1.6 x 0.55 mm
 RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

[ABM11AIG-30.000MHZ-4Z-T3](#) [ABM11AIG-40.000MHZ-4Z-T3](#) [ABM11AIG-20.000MHZ-4Z-T3](#) [ABM11AIG-24.576MHZ-4-T3](#) [ABM11AIG-25.000MHZ-4-T3](#) [ABM11AIG-24.576MHZ-J4Z-T3](#) [ABM11AIG-26.000MHZ-4Z-T3](#) [ABM11AIG-25.000MHZ-J4Z-T3](#) [ABM11AIG-32.000MHZ-J4Z-T3](#) [ABM11AIG-30.000MHZ-J4Z-T3](#) [ABM11AIG-24.000MHZ-J4Z-T3](#) [ABM11AIG-20.000MHZ-J4Z-T3](#) [ABM11AIG-26.000MHZ-J4Z-T3](#) [ABM11AIG-27.000MHZ-J4Z-T3](#) [ABM11AIG-40.000MHZ-J4Z-T3](#) [ABM11AIG-27.000MHZ-4-T3](#) [ABM11AIG-48.000MHZ-4Z-T3](#) [ABM11AIG-19.200MHZ-J4Z-T3](#) [ABM11AIG-32.000MHZ-4-T3](#) [ABM11AIG-19.200MHZ-4-T3](#) [ABM11AIG-26.000MHZ-4-T3](#) [ABM11AIG-24.000MHZ-4Z-T3](#) [ABM11AIG-20.000MHZ-4-T3](#) [ABM11AIG-25.000MHZ-4Z-T3](#) [ABM11AIG-32.000MHZ-4Z-T3](#) [ABM11AIG-27.000MHZ-4Z-T3](#) [ABM11AIG-30.000MHZ-4-T3](#) [ABM11AIG-27.120HZ-4-T3](#) [ABM11AIG-27.120HZ-4Z-T3](#) [ABM11AIG-24.000MHZ-4-T3](#) [ABM11AIG-19.200MHZ-4Z-T3](#) [ABM11AIG-48.000MHZ-4-T3](#) [ABM11AIG-48.000MHZ-J4Z-T3](#) [ABM11AIG-24.576MHZ-4Z-T3](#) [ABM11AIG-27.120HZ-J4Z-T3](#) [ABM11AIG-40.000MHZ-4-T3](#) [ABM11AIG-24.000MHz-2Z-T](#) [ABM11AIG-25.000MHz-6-2-T](#) [ABM11AIG-26.000MHz-1-T](#) [ABM11AIG-27.000MHz-1-T](#) [ABM11AIG-32.000MHz-4Z-T](#) [ABM11AIG-48.000MHz-1-T](#) [ABM11AIG-48.000MHz-7-4Z-T](#) [ABM11AIG-20.000MHZ-8-1Z-T](#) [ABM11AIG-27.120MHZ-6-4H-T](#) [ABM11AIG-48.000MHZ-4-1Z-T](#) [ABM11AIG-24.576MHZ-1Z-T](#) [ABM11AIG-25.000MHZ-4-1F-T](#) [ABM11AIG-24.000MHZ-3Z-T](#) [ABM11AIG-50.000MHZ-4-1Z-T](#) [ABM11AIG-32.000MHZ-4-1Z-T](#) [ABM11AIG-27.000MHZ-6-4H-T](#) [ABM11AIG-16.384MHZ-8-1Y-T](#) [ABM11AIG-27.120MHZ-3Z-T](#) [ABM11AIG-27.000MHZ-4-1Z-T](#) [ABM11AIG-40.000MHZ-4-1Z-T](#) [ABM11AIG-40.000MHZ-8-1W-T](#) [ABM11AIG-48.000MHZ-1Z-T](#) [ABM11AIG-32.000MHZ-6-Z-T](#) [ABM11AIG-50.000MHZ-8-1Z-T](#) [ABM11AIG-16.000MHZ-8-1Z-T](#)