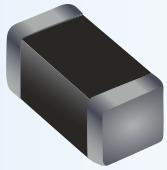
BOURNS®

AUTOMOTIVE GRADE

MH1608A Series

High Current Chip Ferrite Beads



*RoHS COMPLIANT & **HALOGEN FREE

Features

- Compact size
- High current
- Wide impedance range
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

- EMI suppression in power supplies and RF lines

Sustainability

- Small size reduces material use
- High pallet density for lower CO_2
- Eco-logistics friendly packing
- Responsibly sourced and produced
- Meets EU 94/62/EC standards

Product Overview

The Bourns® MH1608A Series features a compact size, low profile, and low DCR, with a rated current of up to 5 A. They also provide high impedance to suppress high-frequency noise in high-density PCB assemblies, and the series is AEC-Q200 compliant and automotive-grade.

With their small footprint and broad operating temperature range of –55 to +150 °C, these ferrite beads are well suited for EMI suppression in power supplies and RF lines.

Electrical Characteristics (@ 25 °C)

Model	Impedance (Ω) @ 100 MHz	DC Resistance (Ω) max.	Rated Current (mA) max.
MH1608A-300Y	30 ± 25 %	0.02	5000
MH1608A-600Y	60 ± 25 %	0.04	3000
MH1608A-800Y	80 ± 25 %	0.04	3000
MH1608A-121Y	120 ± 25 %	0.04	3000
MH1608A-151Y	150 ± 25 %	0.10	2000
MH1608A-181Y	180 ± 25 %	0.10	2000
MH1608A-221Y	220 ± 25 %	0.10	2000
MH1608A-301Y	300 ± 25 %	0.20	1000
MH1608A-471Y	470 ± 25 %	0.20	1000
MH1608A-601Y	600 ± 25 %	0.20	1000
MH1608A-102Y	1000 ± 25 %	0.20	1000

Notes:
Rated current: based on Δ40 °C max. temperature rise.
In compliance with EIA 595.

Contact Information

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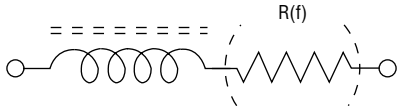
General Specifications

Operating Temperature: ..... -55 to +150 °C
(Temperature rise included)
Storage Temperature ..... -55 to +150 °C
Temperature Rise..... 40 °C at rated current
Moisture Sensitivity Level..... 1
ESD Classification (HBM)..... N/A

Materials

Core Material..... Ferrite
Internal Conductor ..... Ag
Terminal ..... Ag/Ni/Sn
Package..... 4000 pcs. per 7-inch reel

Equivalent Circuit



How to Order

MH1608A - 300 Y

Model

Value Code
(see table)

Tolerance
Y = ±25 %

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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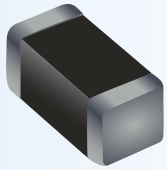
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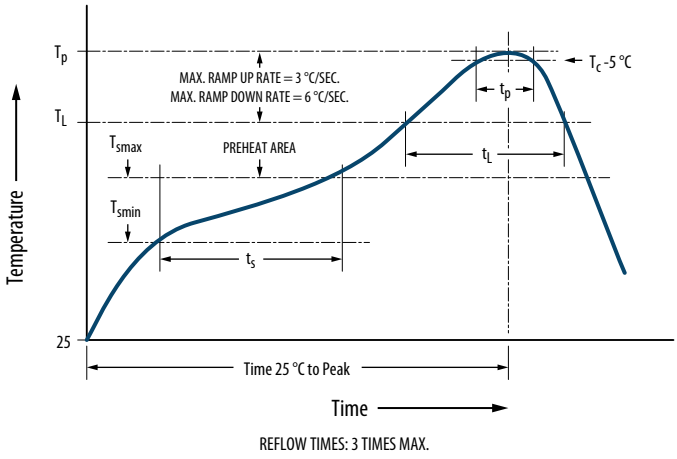
MH1608A Series

High Current Chip Ferrite Beads



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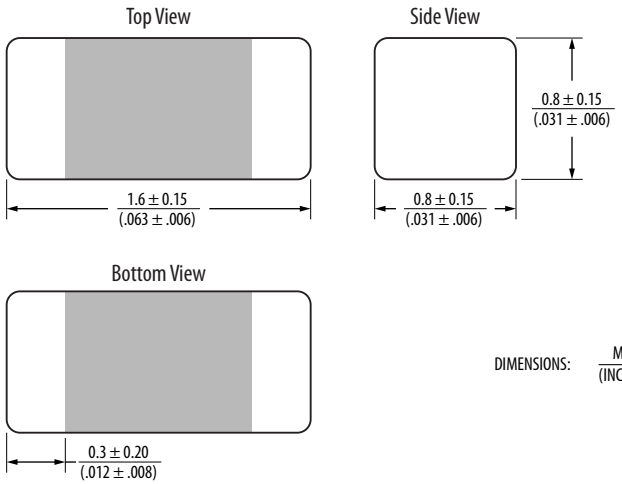
Soldering Profile



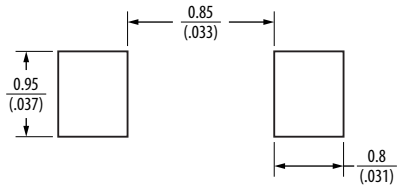
REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L)	217 °C
Time (t_L) maintained above T_L	60-150 seconds
Peak package body temperature (T_p)	260 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Product Dimensions



Recommended Land Pattern



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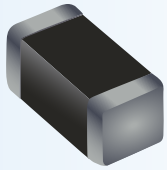
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MH1608A Series

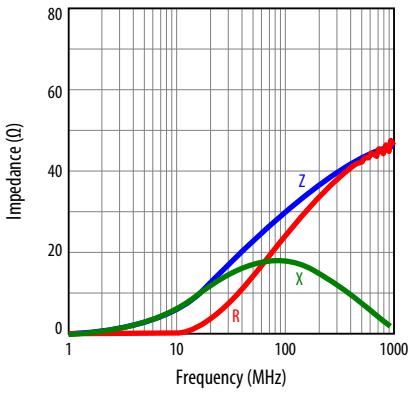
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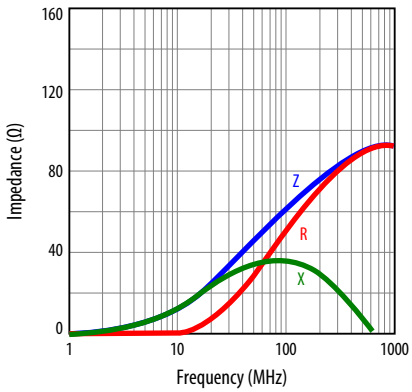
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Impedance vs. Frequency Curves

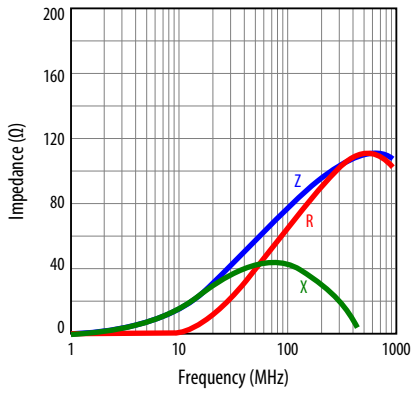
MH1608A-300Y



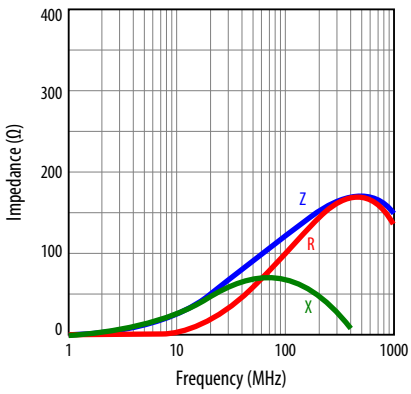
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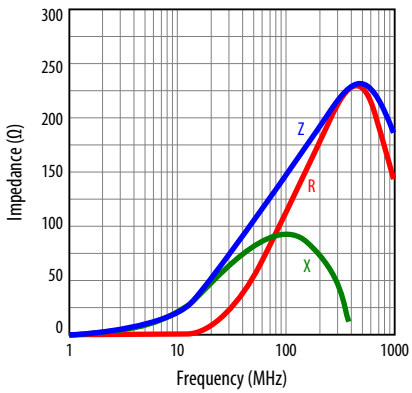
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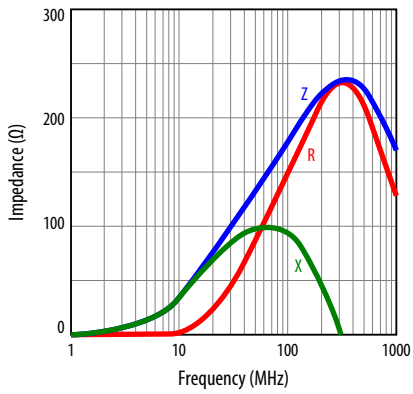
MH1608A-121Y



MH1608A-151Y



MH1608A-181Y



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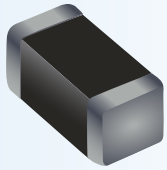
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MH1608A Series

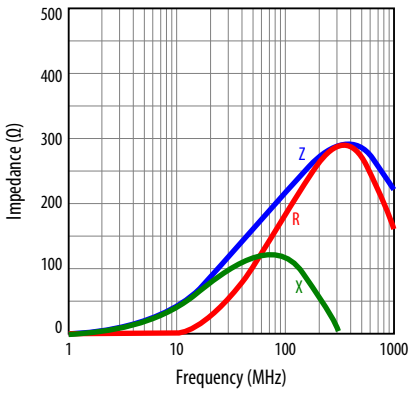
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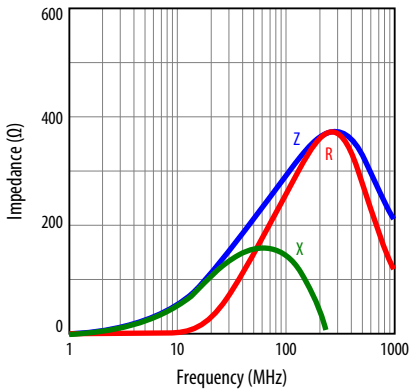
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Impedance vs. Frequency Curves

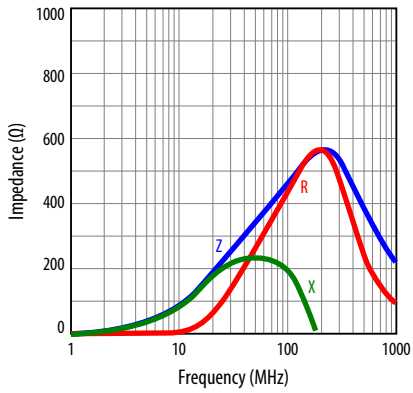
MH1608A-221Y



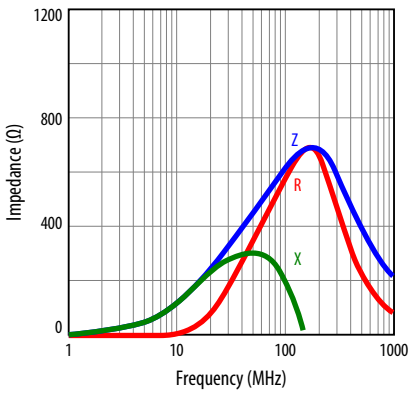
MH1608A-301Y



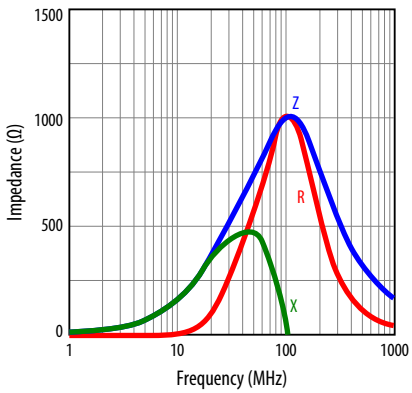
MH1608A-471Y



MH1608A-601Y



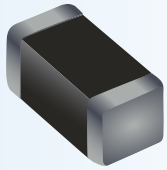
MH1608A-102Y



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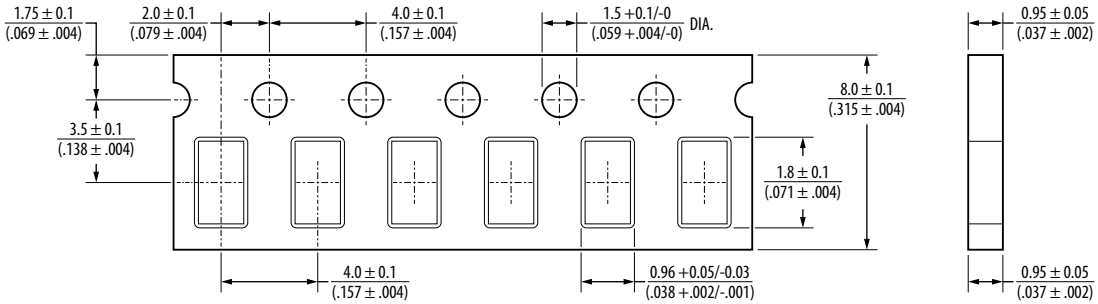
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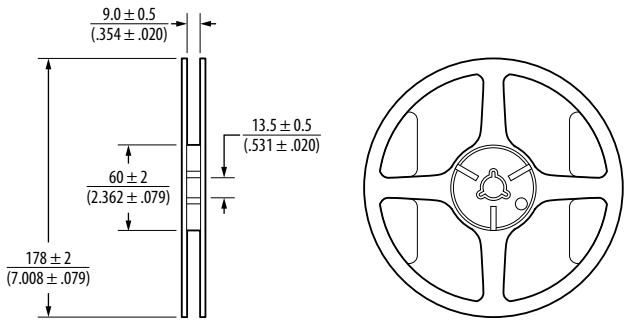
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Packaging Information





DIMENSIONS: MM (INCHES)

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