



## Features

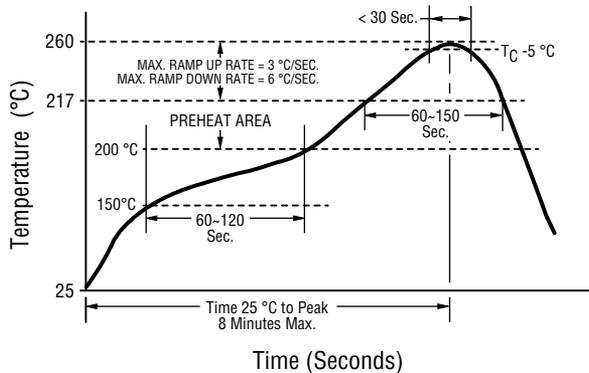
- Compact size
- High current
- Wide impedance range
- RoHS compliant\* and halogen free\*\*

# MH1005 Series High Current Chip Ferrite Beads

## Electrical Specifications

| Model Number | Impedance ( $\Omega$ ) at 100 MHz | RDC (m $\Omega$ ) Max. | IDC (A) Max. |
|--------------|-----------------------------------|------------------------|--------------|
| MH1005-300Y  | 30 $\pm$ 25 %                     | 22                     | 3.0          |
| MH1005-800Y  | 80 $\pm$ 25 %                     | 38                     | 2.3          |
| MH1005-121Y  | 120 $\pm$ 25 %                    | 50                     | 2.0          |
| MH1005-221Y  | 220 $\pm$ 25 %                    | 95                     | 1.5          |
| MH1005-301Y  | 300 $\pm$ 25 %                    | 150                    | 1.2          |
| MH1005-471Y  | 470 $\pm$ 25 %                    | 180                    | 1.1          |
| MH1005-601Y  | 600 $\pm$ 25 %                    | 200                    | 1.0          |

## Soldering Profile



| Profile Feature                                       | Pb Free Assembly |
|---|------------------|
| Preheat   |                  |
| - Temperature Min. ( $T_{smin}$ )                     | 150 °C           |
| - Temperature Max. ( $T_{smax}$ )                     | 200 °C           |
| - Time ( $t_s$ ) from $T_{smin}$ to $T_{smax}$        | 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 within 5 °C of Actual Peak Temperature ( $t_p$ ) | < 30 seconds     |
| Ramp-Down Rate ( $T_p$ to $T_L$ )                     | 6 °C/second max. |
| Time 25 °C to Peak Temperature                        | 8 minutes max.   |

## Additional Information

Click these links for more information:



## General Specifications

Operating Temperature .....-55 °C to +125 °C

Storage Temperature (Component Mounted) .....-55 °C to +125 °C

Rated Current.....Based on max temperature rise of +40 °C

Moisture Sensitivity Level.....1

ESD Classification (HBM).....N/A

## Materials

Core Material.....Ferrite

Internal Conductor.....Ag or Ag/Pd

Terminal.....Ag/Ni/Sn

Packaging..... 10,000 pcs./7-inch reel

## Equivalent Circuit



# BOURNS®

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**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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.

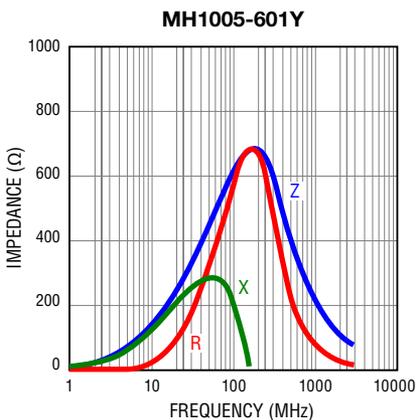
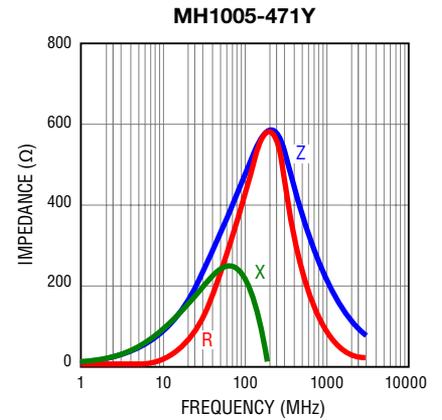
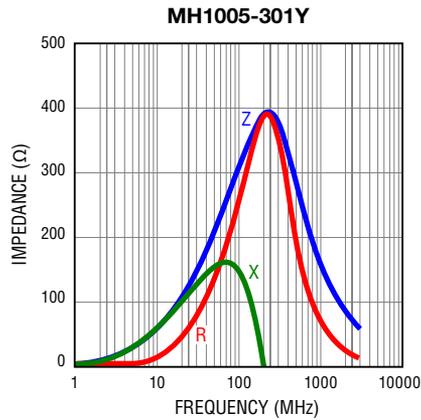
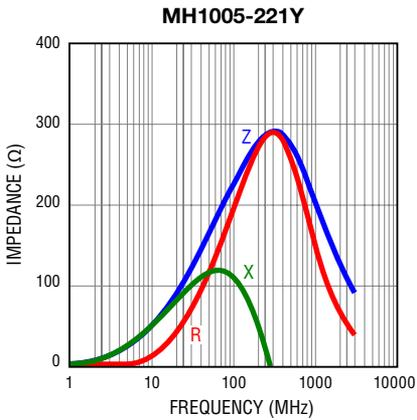
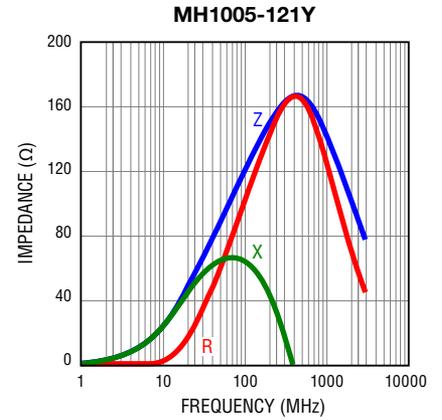
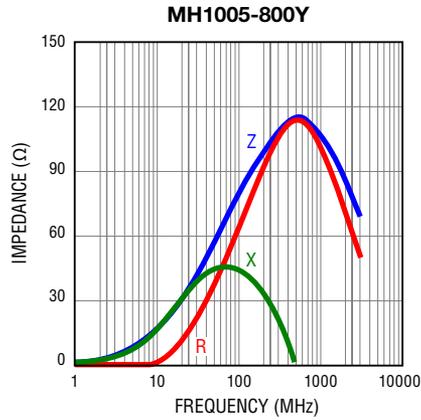
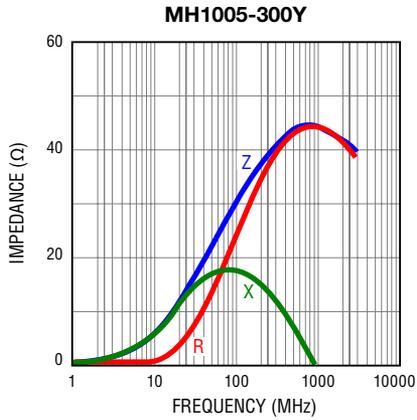
Users should verify actual device performance in their specific applications.

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## Impedance vs. Frequency Curves

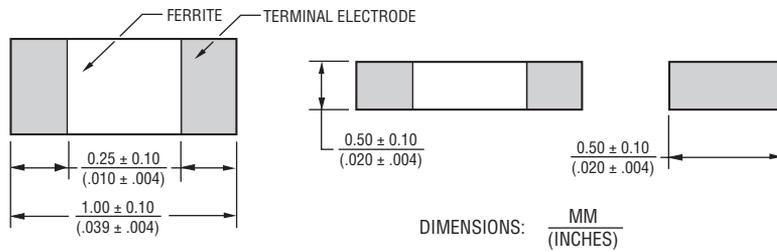


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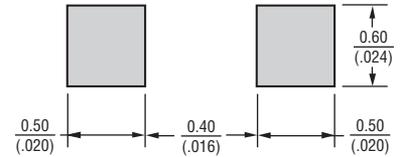
# MH1005 Series High Current Chip Ferrite Beads

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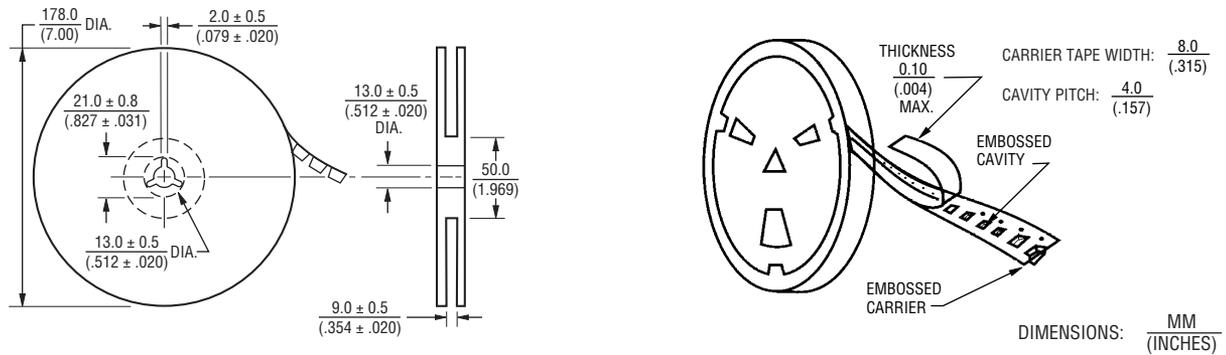
## Product Dimensions



## Recommended Land Pattern



## Reel Dimensions



REV. 06/22

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