

### **Features**

- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting
- Wide impedance range
- RoHS compliant\*

### **Applications**

- Power supply lines
- IC power lines
- Signal lines

# MG, MU, MZ Series High Impedance Chip Ferrite Beads

### **Electrical Specifications**

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Model Number	Impedance del Number (Ω) at 100 MHz		IDC (mA) Max.	
MG2029-100Y	10 ±25 %	0.20	400	
MG2029-300Y	30 ±25 %	0.10	400	
MG2029-400Y	40 ±25 %	0.20	300	
MU2029-600Y	60 ±25 %	0.10	900	
MG2029-800Y	80 ±25%	0.20	300	
MG2029-101Y	100 ±25 %	0.20	400	
MG2029-121Y	120 ±25 %	0.25	300	
MU2029-151Y	150 ±25 %	0.20	800	
MU2029-221Y	220 ±25 %	0.30	500	
MU2029-301Y	300 ±25 %	0.30	500	
MU2029-471Y	470 ±25 %	0.35	700	
MZ2029-601Y	600 ±25 %	0.40	100	
MZ2029-601T	600 ±25 %	0.40	200	
MG1608-300Y	30 ±25 %	0.20	200	
MG1608-400Y	40 ±25 %	0.30	300	
MU1608-600Y	60 ±25 %	0.20	700	
MG1608-800Y	80 ±25 %	0.30	300	
MG1608-101Y	100 ±25 %	0.25	200	
MG1608-121Y	120 ±25 %	0.30	200	
MU1608-151Y	150 ±25 %	0.25	600	
MU1608-221Y	220 ±25 %	0.30	200	
MU1608-301Y	300 ±25 %	0.35	150	
MU1608-471Y	470 ±25 %	0.45	350	
MZ1608-601Y	600 ±25 %	0.45	100	
MZ1608-102Y	1000 ±25 %	0.60	100	
MU1005-100Y	10 ±25 %	0.10	500	
MU1005-300Y	30 ±25 %	0.20	300	
MU1005-600Y	60 ±25 %	0.25	300	
MU1005-121Y	120 ±25 %	0.30	100	
MU1005-151Y	150 ±25 %	0.30	100	
MU1005-221Y	220 ±25 %	0.40	100	
MU1005-241Y	240 ±25 %	0.60	100	
MU1005-301Y	300 ±25 %	0.50	100	
MU1005-471Y	470 ±25 %	0.65	100	
MU1005-601Y	600 ±25 %	0.80	80	
MU1005-102Y	1000 ±25 %	1.20	80	

General Specifications
Operating Temperature
55 °C to +125 °C
Storage Temperature
55 °C to +125 °C
Storage Condition
+40 °C max. at 70 % RH
Reflow Soldering 230 °C, 50 sec. max.
Resistance to Soldering Heat
+260 °C, 5 seconds
Rated CurrentBased on max
temperature rise of +40 °C
Terminal Strength
(Force "F" applied for 30 seconds)
2029 Series0.6 F (Kg)
1608 Series

Materials	
Core Material	Ferrite
Internal Conductor	Ag or Ag/Pd
Terminal	Ag/Ni/Sn

<sup>\*</sup> RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

# MG, MU, MZ Series High Impedance Chip Ferrite Beads **BOURNS**

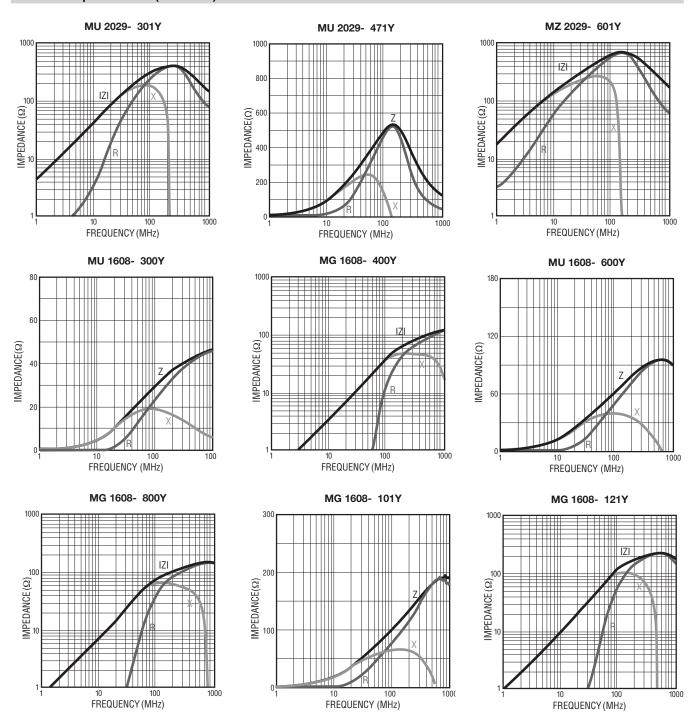
### **Electrical Specifications (continued)** MG 2029- 100Y MG 2029- 300Y MG 2029- 400Y 1000 30 ΙΖΙ 100 IMPEDANCE(\(\Omega\)) IMPEDANCE (\Omega) 100 100 FREQUENCY(MHz) FREQUENCY(MHz) FREQUENCY (MHz) MU 2029- 600Y MG 2029- 800Y MG 2029- 101Y 180 1000 150 150 120 100 IMPEDANCE(Ω) IMPEDANCE( $\Omega$ ) IMPEDANCE(\Overline{\Over 50 30 1000 1000 FREQUENCY (MHz) FREQUENCY (MHz) FREQUENCY(MHz) MG 2029- 121Y MU 2029- 151Y MU 2029- 221Y 1000 1000 400 300 IMPEDANCE(\alpha) ≥ IMPEDANCE(᠒) B IMPEDANCE(Ω) 100 1000 1000

FREQUENCY (MHz)

FREQUENCY (MHz)

FREQUENCY (MHz)

#### **Electrical Specifications (continued)**

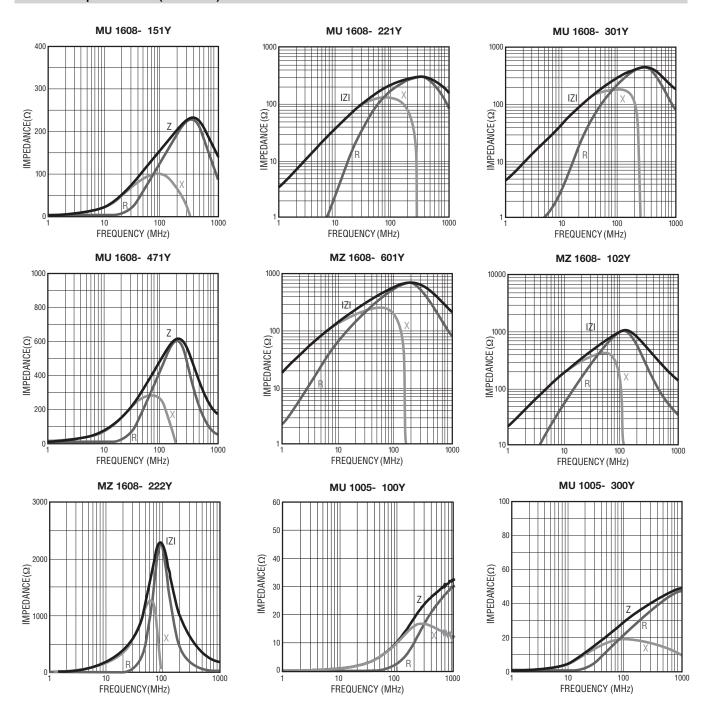


Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# MG, MU, MZ Series High Impedance Chip Ferrite Beads **BOURNS**

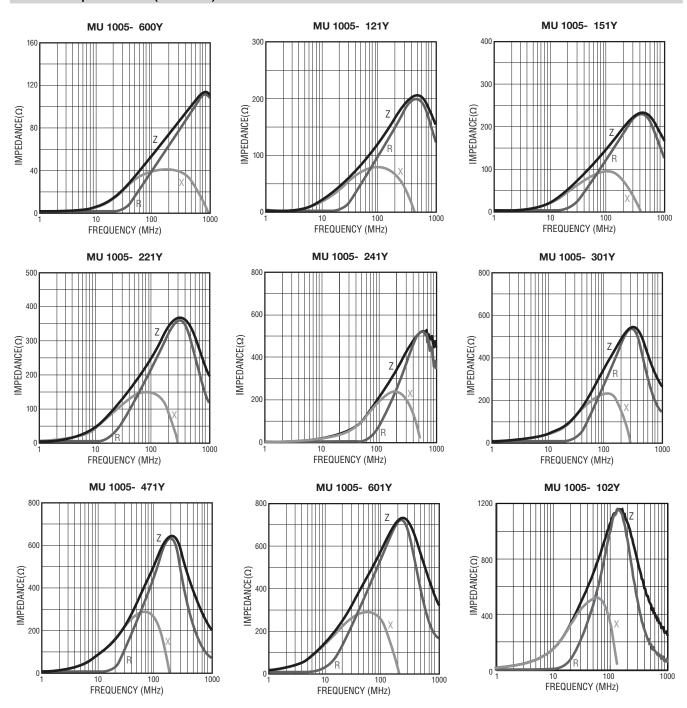
#### **Electrical Specifications (continued)**



# MG, MU, MZ Series High Impedance Chip Ferrite Beads

# **BOURNS**

#### **Electrical Specifications (continued)**

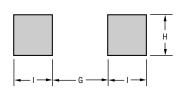


# MG, MU, MZ Series High Impedance Chip Ferrite Beads **BOURNS**

#### **Product Dimensions**

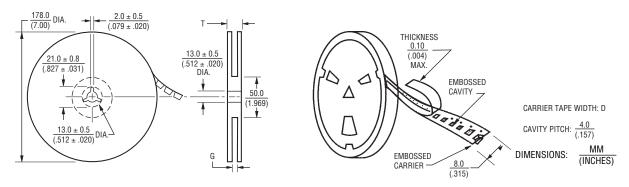
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#### **Recommended Land Pattern**



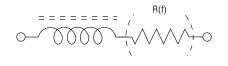
Series	Α	В	С	D	G	н	I
2029	$\frac{2.0 \pm 0.2}{(.079 \pm .008)}$	$\frac{1.2 \pm 0.2}{(.047 \pm .008)}$	$\frac{0.9 \pm 0.2}{(.035 \pm .008)}$	$\frac{0.5 \pm 0.2}{(.020 \pm .008)}$	1.0 (.040)	1.0 (.040)	1.0 (.040)
1608	$\frac{1.6 \pm 0.15}{(.063 \pm .006)}$	$\frac{0.8 \pm 0.2}{(.031 \pm .008)}$	$\frac{0.8 \pm 0.2}{(.031 \pm .008)}$	$\frac{0.3 \pm 0.2}{(.012 \pm .008)}$	<u>0.7</u> (.028)	<u>0.7</u> (.028)	<u>0.7</u> (.028)
1005	$\frac{1.0 \pm 0.10}{(.039 \pm .004)}$	$\frac{0.5 \pm 0.1}{(.020 \pm .004)}$	$\frac{0.5 \pm 0.1}{(.020 \pm .004)}$	$\frac{0.25 \pm 0.1}{(.010 \pm .004)}$	<u>0.5</u> (.020)	<u>0.55</u> (.022)	<u>0.7</u> (.028)

#### **Reel Dimensions**

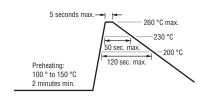


Series	Pcs. per Reel	Gross Weight (g)	D	G	Т
2029	4,000	120	8.0 (.315)	$\frac{10.0 + 0}{(.394 + 0)}$	12.5 (.492)
1608	4,000	90			
1005	10,000	135	(.010)	(.054 1 0)	(.432)

### **Equivalent Circuit**



### **Recommended Soldering**



REV. 12/14

## **Mouser Electronics**

**Authorized Distributor** 

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

### **Bourns:**

MG2029-800Y MG2029-100Y MG2029-152Y MG2029-400Y MG1608-800Y MG3261-121Y MG1608-121Y
MG1608-220Y MG2029-121Y MG1608-400Y MG2029-222Y MZ3261-202Y MZ1608-102Y MUBEAD-LAB1
MZ2029-152Y MZ2029-202Y MG1608-152Y MG2029-202Y MG1608-252Y MG2029-101Y MG2029-300Y MZ1608-222Y MZ2029-401Y MZ1608-152Y MU1005-121Y MU1005-151Y MU1005-221Y MU1005-300Y MU1005-301Y
MU1005-471Y MU1005-600Y MU1005-601Y MU1608-151Y MU1608-471Y MU1608-600Y MU2029-151Y MU2029-471Y MU2029-600Y MZ2029-601T MU1608-221Y MU1608-301Y MU2029-221Y MU2029-301Y MZ2029-601Y
MZ1608-601Y MZ3261-122Y MG1608-300Y MU1005-100Y MU1005-102Y MU1005-241Y MU2029-601Y MZ2029-522Y MG1608-101Y