Normal Mode for Signal Line, Through-Hole Type, Bead Lead Type Series

Overview

The KEMET lead type beads intended for normal mode noise suppression have a wide variety of characteristics. These through-hole beads are designed with our proprietary ferrite material and are suitable for noise countermeasure in DC signal line circuits.

Applications

- Audio-visual equipment
- Office automation equipment
- Digital appliances
- Home appliances
- Power supplies

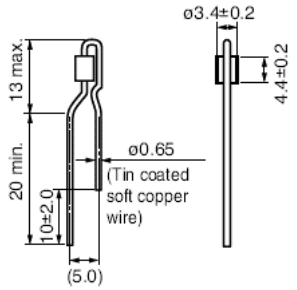
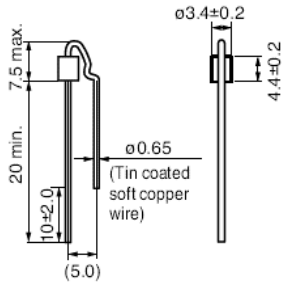
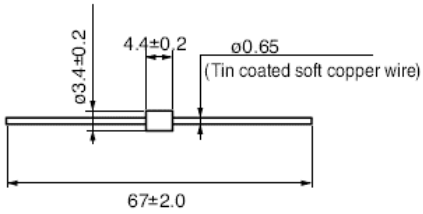
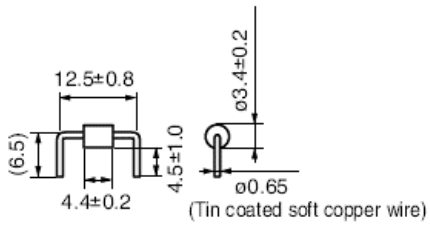
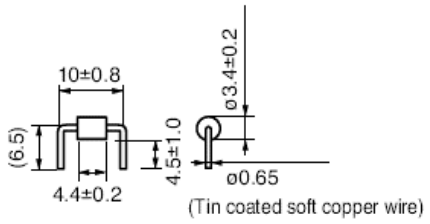
Benefits

- Proprietary Nickel-Zinc (Ni-Zn) ferrite core
- High loss
- High reliability
- Operating temperature range from −20°C to +70°C
- RoHS Compliant

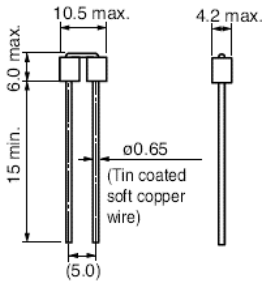
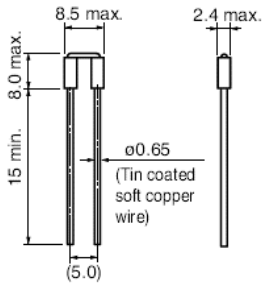
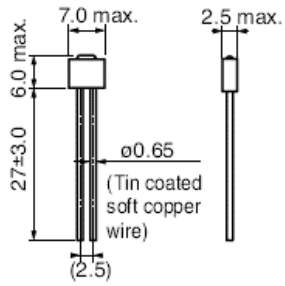
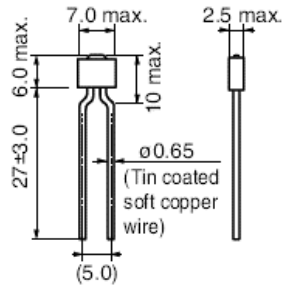
Part Number System

B-	01-	R	T
Series	Impedance (Ω)	Lead Type	Packaging Type
Bead	01 = 2 Ω 02 = 4 Ω 03 = 5 Ω 06 = 40 Ω	A A1 A2 R R-25 R-50 RS	Blank = Bulk T = Tape & Reel TF = Flat taping

Dimensions – Millimeters

Part Number	Dimensions - Millimeters
B-01-R	
B-01-RS	
B-01-A	
B-01-A1	
B-01-A2	

Dimensions – Millimeters cont.

Part Number	Dimensions - Millimeters
B-02-R	
B-03-R	
B-06-R-25	
B-06-R-50	

Environmental Compliance

All KEMET DC line filters are RoHS Compliant.

Performance Characteristics

Item	Performance Characteristics
Rated Current	5 A
Impedance Range	2 – 40 Ω
Shape	Single-bead and double-bead
Lead Type	Axial and radial
Operating Temperature	–20°C to +70°C (not including self-temperature rise)

Table 1 – Ratings & Part Number Reference

Part Number	Rated Current DC[1] (A)	Impedance (Ω)	Shape	Lead Type	Weight (g)
B-01-R	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-RT	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-RTF	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-RS	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-RTS	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-RTSF	5	2 at 1 MHz	Single-bead	Radial	0.40
B-01-A	5	2 at 1 MHz	Single-bead	Axial	0.40
B-01-A1	5	2 at 1 MHz	Single-bead	Axial	0.30
B-01-A2	5	2 at 1 MHz	Single-bead	Axial	0.30
B-01-AT*	**5**	**2 at 1 MHz**	**Single-bead**	**Axial**	**0.40**
B-01-ATF	5	2 at 1 MHz	Single-bead	Axial	0.40
B-01-AT1F	5	2 at 1 MHz	Single-bead	Axial	0.30
B-02-R	5	4 at 1 MHz	Double-bead	Radial	0.60
B-02-RT	5	4 at 1 MHz	Double-bead	Radial	0.60
B-02-RTF	5	4 at 1 MHz	Double-bead	Radial	0.60
B-03-R	5	5 at 1 MHz	Double-bead	Radial	0.30
B-03-RT	5	5 at 1 MHz	Double-bead	Radial	0.30
B-06-R-25	5	40 at 10 MHz	Double-bead	Radial	0.50
B-06-RTF-25	5	40 at 10 MHz	Double-bead	Radial	0.50
B-06-R-50	5	40 at 10 MHz	Double-bead	Radial	0.50
B-06-RTF-50	5	40 at 10 MHz	Double-bead	Radial	0.52

[1] Rated current values are not guaranteed by impedance levels; these values are permissible levels when the lead wire temperature rise is 20°C.

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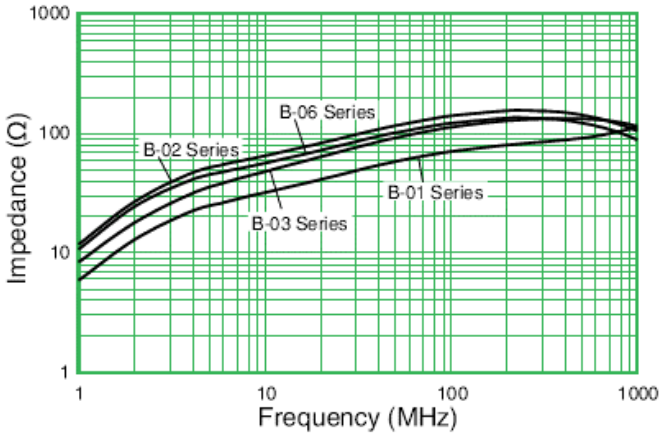
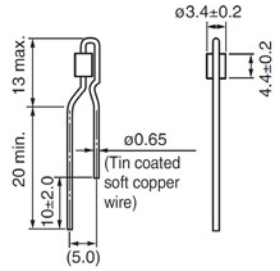
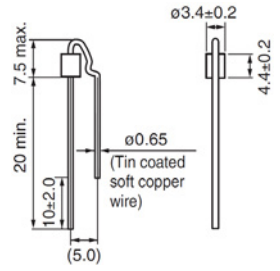
Frequency Characteristics

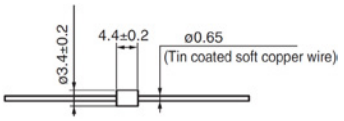
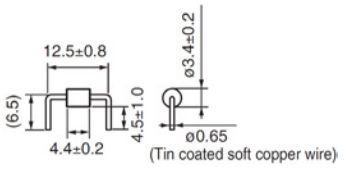
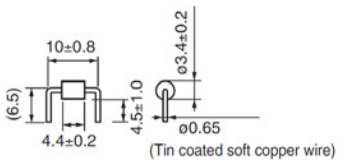
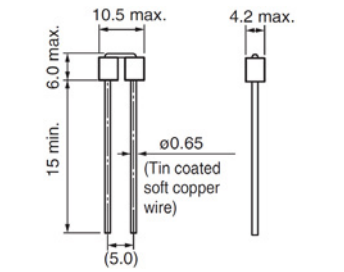
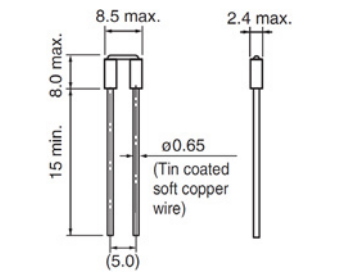


Packaging

Part Type	Images	Packaging Type	Pieces per Package	Inner Package	Pieces per Package	Outer Box	Pieces per Box
B-01-R		Bulk Plastic Bags	100	Box	3,000	L 230mm W 280mm H 230mm	18,000
B-01-RT		Taping[1]	–	Reel	2,000	L 380mm W 380mm H 350mm	12,000
B-01-RTF				Ammo	2,000	L 280mm W 410mm H 360mm	20,000
B-01-RS		Bulk Plastic Bags	100	Box	3,000	L 230mm W 280mm H 230mm	18,000
B-01-RTS		Taping[1]	–	Reel	2,000	L 380mm W 380mm H 350mm	12,000
B-01-RTSF				Ammo	2,000	L 280mm W 410mm H 360mm	20,000

1 See Reel Specifications for dimensions.

Packaging cont.

Part Type	Images	Packaging Type	Pieces per Package	Inner Package	Pieces per Package	Outer Box	Pieces per Box
B-01-A		Bulk Plastic Bags	100	Box	3,000	L 230mm W 280mm H 230mm	18,000
B-01-AT*		**Taping[1] (Long Pin)**	**–**	**Reel**	**5,000**	**L 380mm W 380mm H 350mm**	**20,000**
B-01-ATF		Taping[1] (Long Pin)	–	Ammo	1,500	L 230mm W 280mm H 230mm	15,000
B-01-AT1F		Taping[1] (Short Pin)	–	Ammo	2,000	L 230mm W 280mm H 230mm	32,000
B-01-A1		Bulk Plastic Bags	250	Box	5,000	L 230mm W 280mm H 230mm	30,000
B-01-A2		Bulk Plastic Bags	250	Box	5,000	L 230mm W 280mm H 230mm	30,000
B-02-R		Bulk Plastic Bags	100	Box	2,000	L 230mm W 280mm H 230mm	12,000
B-02-RT		Taping[1]	–	Reel	2,000	L 380mm W 380mm H 350mm	12,000
B-02-RTF				Ammo	1,500	L 280mm W 410mm H 360mm	15,000
B-03-R		Bulk Plastic Bags	100	Box	3,000	L 230mm W 280mm H 230mm	18,000
B-03-RT		Taping[1]	–	Reel	2,000	L 380mm W 380mm H 350mm	12,000

1 See Reel Specifications for dimensions.

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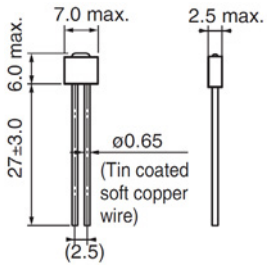
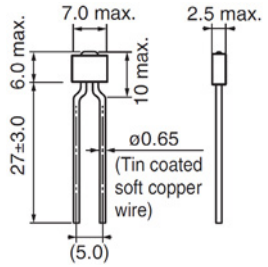
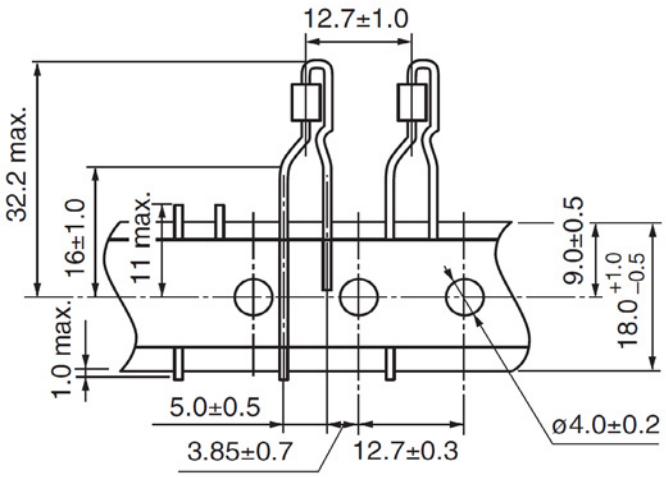
Packaging cont.

Part Type	Images	Packaging Type	Pieces per Package	Inner Package	Pieces per Package	Outer Box	Pieces per Box
B-06-R-25		Bulk Plastic bags	100	Box	2,000	L 230mm W 280mm H 230mm	12,000
B-06-RTF-25		Taping[1]	-	Ammo	1,500	L 280mm W 410mm H 360mm	15,000
B-06-R-50		Bulk Plastic bags	100	Box	2,000	L 230mm W 280mm H 230mm	12,000
B-06-RTF-50		Taping[1]	-	Ammo	1,500	L 280mm W 410mm H 360mm	15,000

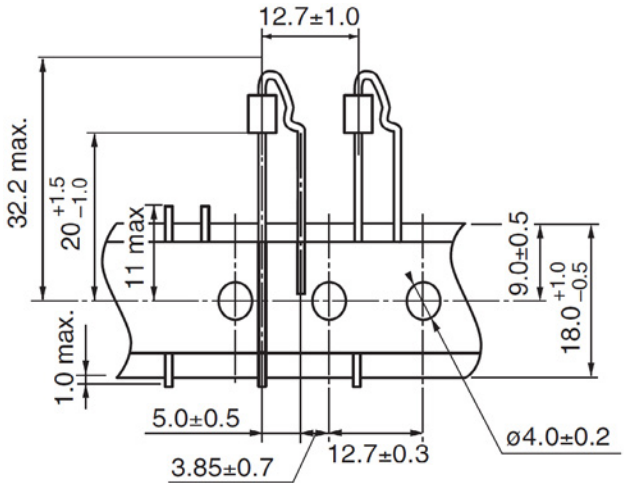
1 See Reel Specifications for dimensions.

Taping Specifications

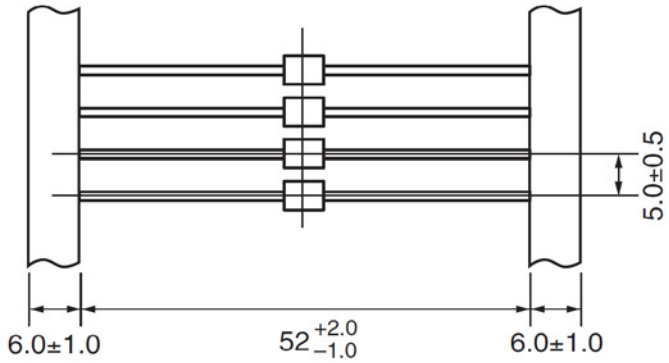
B-01-RT / B-01-RTF



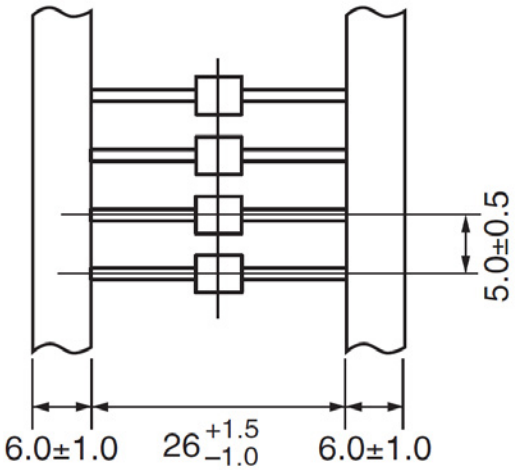
B-01-RTS / B-01-RTSF



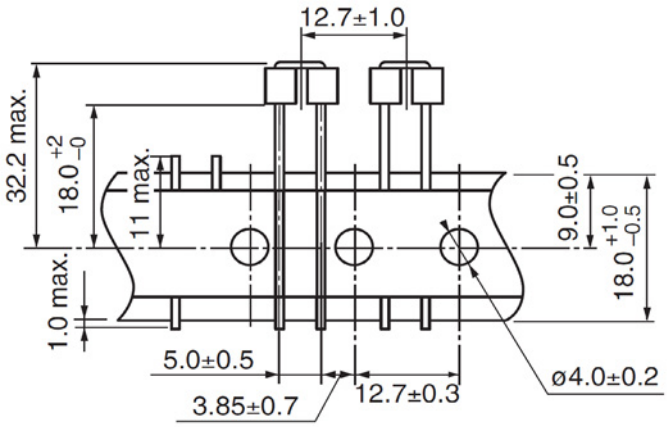
B-01-ATF



B-01-AT1F

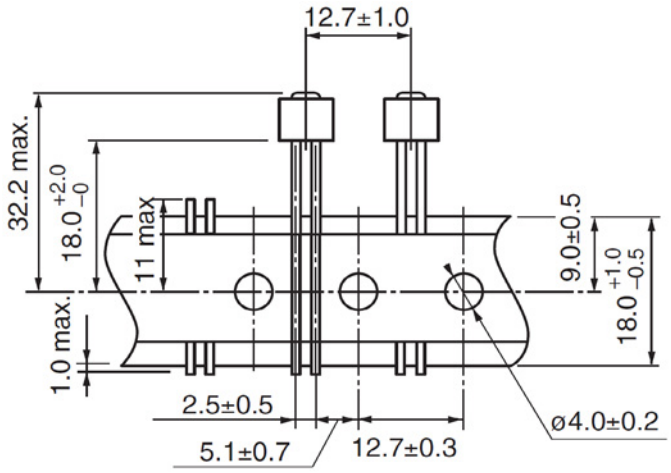


B-02-RT / B-02-RTF / B-03-RT



Taping Specifications cont.

B-06-RTF-25



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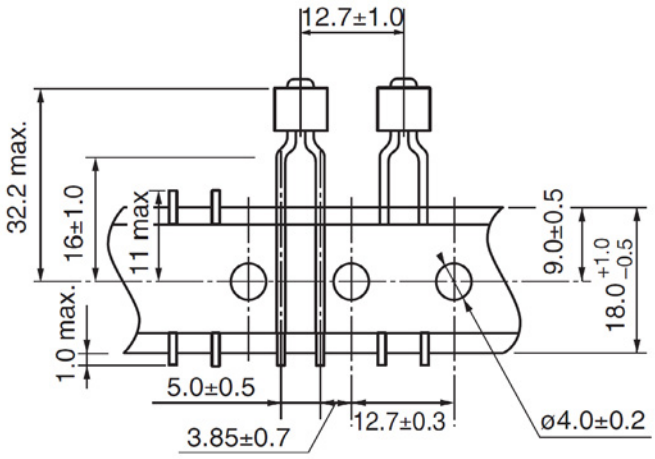
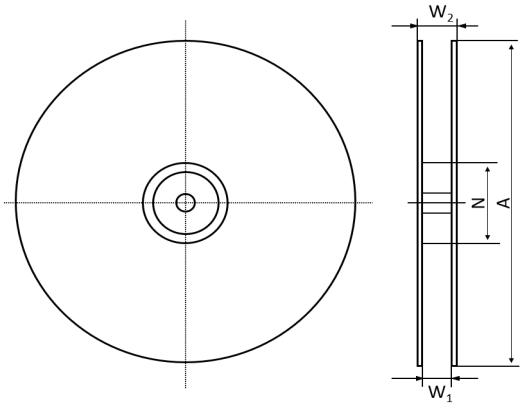


Reel Specifications

Reel Dimensions - Millimeters



Part Number	A	N	W_1 +1.0, -0.0	W_2 Maximum
B-01-AT*	**360.0**	**81.0**	**68.0**	**73.2**
B-01-RT	360.0	140.0	44.0	50.2
B-01-RTS	360.0	140.0	44.0	50.2
B-02-RT	360.0	140.0	44.0	50.2
B-03-RT	360.0	140.0	44.0	50.2

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Handling Precautions

Precautions for product storage

DC Line Filters should be stored in normal working environments. While the chokes themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity. Atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Do not store near strong magnetic fields, as this might magnetize the product.

For optimized solderability, DC line filter stock should be used promptly, preferably within six months of receipt.

Product temperature rise values

The values listed for temperature rise are the result of self-heating in wires when the rated current (commercial frequency) is applied. When using, check and evaluate the value of the core temperature rise under actual operating conditions.

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KEMET:

B-01-A B-01-A1 B-01-A2 B-01-AT B-01-AT1F B-01-ATF B-06-R-50 B-06-RTF-25 B-06-RTF-50 B-02-R B-02-RT B-02-RTF B-03-R B-03-RT B-06-R-25 B-01-R B-01-RS B-01-RT B-01-RTF B-01-RTS B-01-RTSF