

# Ferrite Cores for EMI Suppression

## Ferrite Beads

### B Series(Lead)

B series are easy to handle and are supplied in various materials, shapes and packaging styles to meet for users' requests.

#### FEATURES

- Appropriate materials and shapes can be selected from various cores to suppress EMI effectively.
- The axial leaded type can be supplied both box and reel type packagings with 52mm[2.047 inches] and 26mm [1.024 inches] tape width (26mm for the box packaging). So can be selected depending on your automatic insertion machines.

#### APPLICATIONS

Video, acoustic, office automation equipment, communication equipment, automotive electronic equipment and others.

- Absorption EMI and penetrating noise
- Prevent parasitic oscillation

#### PRODUCT IDENTIFICATION

HF55	B	TL	3.5	X	4.5	B	-AG
(1)	(2)	(3)	(4)		(5)	(6)	(7)

(1) Material code

(2) Series

(3) Type

TL: Taping type, 52mm[2.047 inches] tape width

TS: Taping type, 26mm[1.024 inches] tape width

HZ: Forming type, 15mm[.591 inches] lead pitch

HY: Forming type, 12.5mm[.492 inches] lead pitch

HW: Forming type, 10mm[.394 inches] lead pitch

WA: Straight wire type, 63mm[2.480 inches] overall length

WB: Straight wire type, 37mm[1.457 inches] overall length

(4) Outer diameter  $\phi A$ (mm)

(5) Length B(mm)

(6) Packaging style

B: Ammo-pack

R: Reel

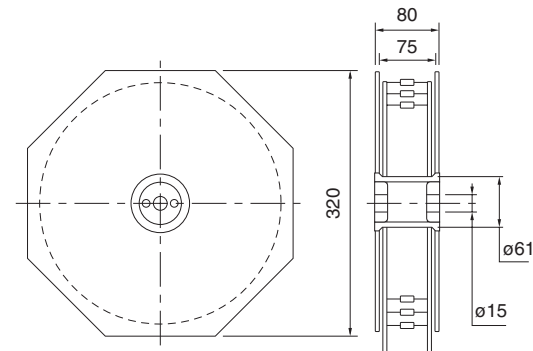
(7)  $\phi 0.62$ mm Sn-plated soft copper wire(lead free)

#### MATERIAL CHARACTERISTICS

Material	Initial permeability $\mu_i$	Temperature factor of initial permeability $\alpha_{\text{pir}} \times 10^{-6}/^\circ\text{C}$	Curie temperature $T_c$ ( $^\circ\text{C}$ )	Saturation magnetic flux density $B_s$ (mT)
HF70	1500	1 to 6	>100	280[H=1600A/m]
HF55	550	15 to 35	>125	290[H=1600A/m]
HF40	120	8 to 18	>250	410[H=4000A/m]
HF30	45	5 to 15	>300	320[H=4000A/m]

#### PACKAGING STYLE AND QUANTITIES

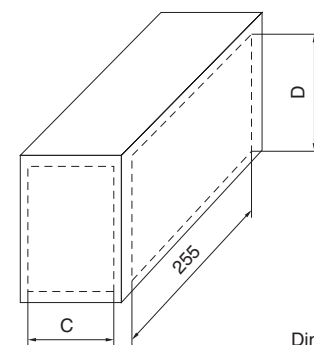
##### REEL



Dimensions in mm

Packaging	Wrapping	Quantity/box
Taping	Reel	4000 pieces/reel

##### BOX



Dimensions in mm

Packaging	Wrapping	Product OD $\phi A$ (mm)	Box dimension		Quantity/box
			C(mm)	D(mm)	
Taping	Box	2.6	41	81	3000 pieces/box
		3.5	75	76	1500 pieces/box

## SHAPES AND DIMENSIONS/ELECTRICAL CHARACTERISTICS

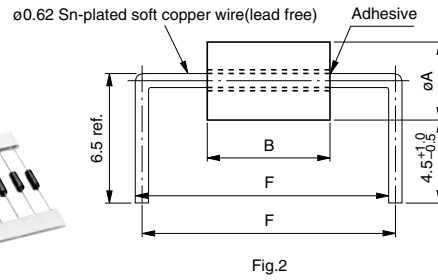
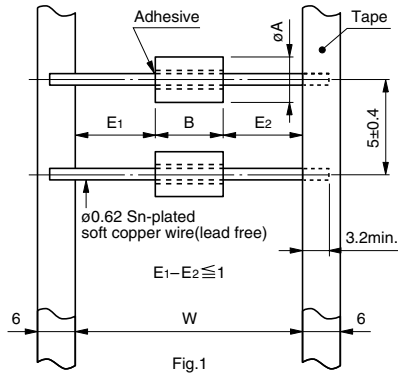
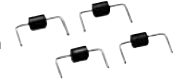


Fig.2

Dimensions in mm



Part No.	Shape	Dimensions(mm)				Impedance( $\Omega$ )[at 23°C]	
		A	B	W	F	10MHz typ.	100MHz typ.
HF55BTL3.5X4.5B-AG	Fig.1	3.5±0.2	4.5±0.3	52.5±1.5		34	74
HF55BTL3.5X4.5R-AG	Fig.1	3.5±0.2	4.5±0.3	52.5±1.5		34	74
HF70BTL3.5X6R-AG	Fig.1	3.5±0.2	6±0.3	52.5±1.5		50	83
HF55BTL3.5X8R-AG	Fig.1	3.5±0.2	8±0.3	52.5±1.5		58	125
HF70BTL3.5X9R-AG	Fig.1	3.5±0.2	9±0.4	52.5±1.5		76	120
HF55BTS3.5X4.5B-AG	Fig.1	3.5±0.2	4.5±0.3	26.75±0.75		34	74
HF55BHW3.5X4.5-AG	Fig.2	3.5±0.2	4.5±0.3		10±0.7	34	74
HF55BHW3.5X6-AG	Fig.2	3.5±0.2	6±0.3		10±0.7	47	98
HF55BHY3.5X6-AG	Fig.2	3.5±0.2	6±0.3		12.5±0.7	47	98
HF55BHY3.5X8-AG	Fig.2	3.5±0.2	8±0.3		12.5±0.7	58	125
HF55BHZ3.5X8-AG	Fig.2	3.5±0.2	8±0.3		15±1	58	125

## TYPICAL ELECTRICAL CHARACTERISTICS

### IMPEDANCE vs.FREQUENCY CHARACTERISTICS

HF55BTL3.5X4.5□-AG

HF70BTL3.5X6R-AG

HF55BTL3.5X8R-AG

HF70BTL3.5X9R-AG

HF55BTS3.5X4.5B-AG

HF55BHY3.5X8-AG

HF55BHW3.5X4.5-AG

HF55BHZ3.5X8-AG

