

Ni-Zn
Mn-Zn
Ferrites for EMI suppression



T series (Ring-shape)



FEATURES

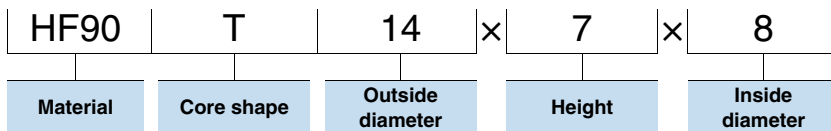
- Select various materials according to the noise frequency.
- The product has a wide range of sizes ranging from $\phi 14$ to $\phi 104$ outer diameters.
- Epoxy coating is also available. (HF60 and HF90 only)

APPLICATION

- Imaging devices, audio equipment, automotive electronics, communication devices, office electronics, industrial equipment, other
- Absorption EMI and penetrating noise
 - Prevent parasitic oscillation

PART NUMBER CONSTRUCTION

For general use



RANGE OF USE AND STORAGE TEMPERATURE

Ni-Zn T series (HF70)

Temperature range*	
Operating temperature (°C)	Storage temperature (°C)
-40 to +85	-40 to +85

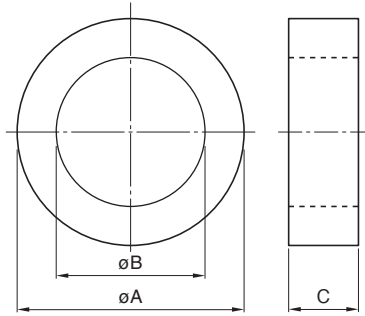
Mn-Zn T series (HF60, HF90)

Temperature range*	
Operating temperature (°C)	Storage temperature (°C)
-30 to +85	-30 to +85

* If you want to use or store the product above this temperature, please contact us.

T series (Ring-shape)

SHAPE & DIMENSIONS



Ni-Zn T series (HF70)

Shape	Material	Dimensions			Impedance (Ω) min.				Part No.
		ØA (mm)	ØB (mm)	C (mm)	0.5MHz	1MHz	10MHz (n=1T)	100MHz (n=1T)	
T14X7X8	HF70	14.0±0.3	8.0±0.3	7.0±0.2	—	—	24	51	HF70T14X7X8
T18X10X10	HF70	18.0±0.3	10.0±0.3	10.0±0.3	—	—	32	62	HF70T18X10X10
T22X10X14	HF70	22.0±0.4	14.0±0.3	10.0±0.3	—	—	25	50	HF70T22X10X14
T25X13X15	HF70	25.0±0.3	15.0±0.3	13.0±0.2	—	—	33	68	HF70T25X13X15
T28X13X16	HF70	28.0±0.4	16.0±0.4	13.0±0.3	—	—	41	83	HF70T28X13X16
T31X13X19	HF70	31.0±0.5	19.0±0.5	13.0±0.2	—	—	37	75	HF70T31X13X19

Mn-Zn T series (HF60)

Shape	Material	Dimensions			Impedance (Ω) min.				Part No.
		ØA (mm)	ØB (mm)	C (mm)	0.5MHz (n=1T)	1MHz (n=1T)	10MHz (n=1T)	100MHz	
T14X7X8	HF60	14.0±0.5	8.0±0.5	7.0±0.5	—	3.12	15.02	—	HF60T14X7X8
T18X10X10	HF60	18.0±0.7	10.0±0.7	10.0±0.5	—	4.67	22.50	—	HF60T18X10X10
T22X10X14	HF60	22.0±0.7	14.0±0.7	10.0±0.5	—	3.60	17.30	—	HF60T22X10X14
T25X13X15	HF60	25.0±1.0	15.0±1.0	13.0±1.0	—	5.29	25.48	—	HF60T25X13X15
T28X13X16	HF60	28.0±1.0	16.0±1.0	13.0±1.0	—	5.79	27.89	—	HF60T28X13X16
T31X13X19	HF60	31.0±1.0	19.0±1.0	13.0±1.0	—	5.07	24.42	—	HF60T31X13X19
T38X14X22	HF60	38.0±1.0	22.0±1.0	14.0±1.0	—	6.10	29.30	—	HF60T38X14X22
T44.5X13X30	HF60	44.5±1.0	30.0±1.0	13.0±1.0	—	4.10	20.00	—	HF60T44.5X13X30
T62X13X39	HF60	62.5±1.3	39.0±1.3	13.5±1.0	—	5.40	27.00	—	HF60T62X13X39
T80X20X50	HF60	80.0±1.6	50.0±1.6	20.0±1.0	—	7.50	33.00	—	HF60T80X20X50
T104X20X80	HF60	104.0±2.0	80.0±2.0	20.0±1.0	—	4.60*	25.00*	—	HF60T104X20X80

* Reference value.

Mn-Zn T series (HF90)

Shape	Material	Dimensions			Impedance (Ω) min.				Part No.
		ØA (mm)	ØB (mm)	C (mm)	0.5MHz (n=1T)	1MHz (n=1T)	10MHz (n=1T)	100MHz	
T14X7X8	HF90	14.0±0.3	8.0±0.3	7.0±0.2	15.5*	—	—	—	HF90T14X7X8
T18X10X10	HF90	18.0±0.3	10.0±0.3	10.0±0.3	22.4*	—	—	—	HF90T18X10X10
T22X10X14	HF90	22.0±0.4	14.0±0.3	10.0±0.3	18.9*	—	—	—	HF90T22X10X14
T25X13X15	HF90	25.0±0.3	15.0±0.3	13.0±0.3	22.2*	—	—	—	HF90T25X13X15
T28X13X16	HF90	28.0±0.4	16.0±0.4	13.0±0.3	18.8	—	—	—	HF90T28X13X16
T31X13X19	HF90	31.0±0.5	19.0±0.4	13.0±0.3	14.4	—	—	—	HF90T31X13X19
T38X14X22	HF90	38.0±0.8	22.0±0.5	14.0±0.3	15.4	—	—	—	HF90T38X14X22
T44.5X13X30	HF90	44.5±1.1	30.0±0.8	13.0±0.5	12.5	—	—	—	HF90T44.5X13X30
T62X13X39	HF90	62.5±1.3	39.0±0.8	13.5±0.5	8.3	—	—	—	HF90T62X13X39
T80X20X50	HF90	80.0±1.6	50.0±1.0	20.0±0.5	8.2	—	—	—	HF90T80X20X50
T104X20X80	HF90	104.0±2.0	80.0±1.6	20.0±0.5	5.9	—	—	—	HF90T104X20X80

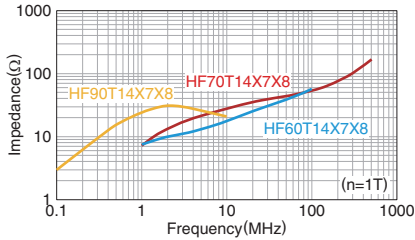
* Reference value.

T series (Ring-shape)

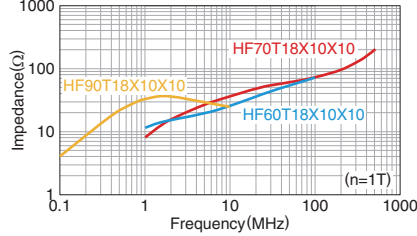
ELECTRICAL CHARACTERISTICS

IMPEDANCE VS. FREQUENCY CHARACTERISTICS

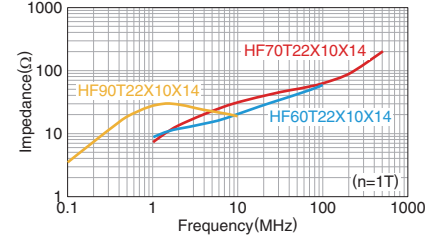
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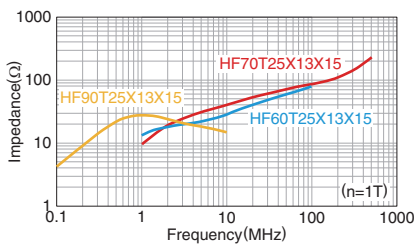
T18X10X10



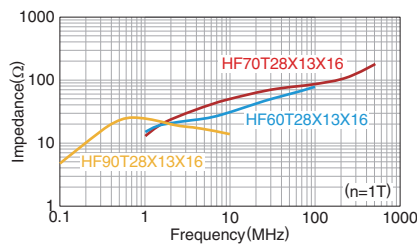
T22X10X14



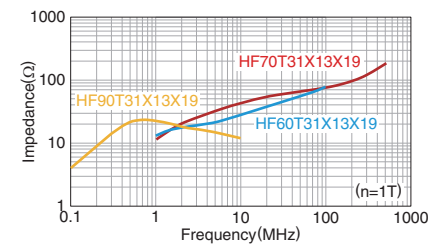
T25X13X15



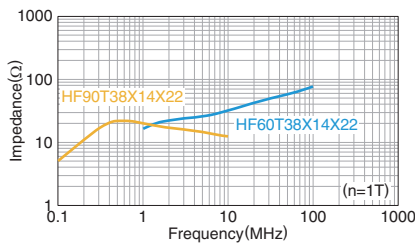
T28X13X16



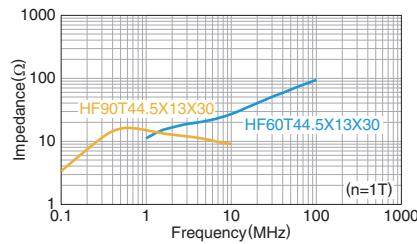
T31X13X19



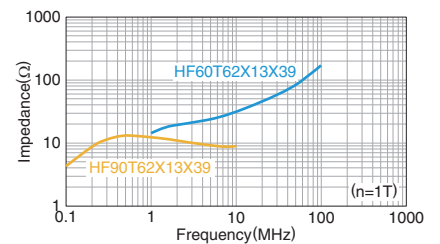
T38X14X22



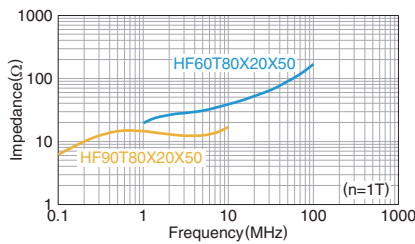
T44.5X13X30



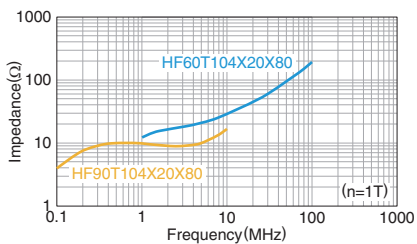
T62X13X39



T80X20X50



T104X20X80



 **REMINDERS FOR USING THESE PRODUCTS**

Please be sure to read this manual thoroughly before using the products.

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

When using the products for specific purposes, please first make confirmations in areas such as safety, reliability, and quality.

Please note that we shall not be held responsible in any way if any damages should occur due to exceeding the scope or conditions of this manual, or through specific use these products.

- | | |
|---|--|
| (1) Aerospace/aviation equipment | (9) Military equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (10) Electric heating apparatus, burning equipment |
| (3) Medical equipment | (11) Disaster prevention/crime prevention equipment |
| (4) Power-generation control equipment | (12) Safety equipment |
| (5) Atomic energy-related equipment | (13) Other applications that are not considered general-purpose applications |
| (6) Seabed equipment | |
| (7) Transportation control equipment | |
| (8) Public information-processing equipment | |

When using these products in general purposes and standard use, it is recommended that protection circuits are used, devices are secured, and backup circuits are kept for increased safety.