



Ni-Zn

Ferrites for EMI Suppression

T series(Toroidal)

 **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 understand that we are not in a position to be held responsible for any damage or the like caused by any use exceeding the range or conditions of this specification sheet or by any use in the specific applications.

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

When using this product in general-purpose standard applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc to ensure higher safety.

Ferrites for EMI Suppression

Product compatible with RoHS directive
Halogen-free

Overview of the T Series

■ Features

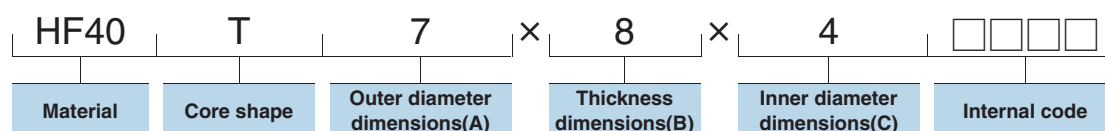
- Various shapes and materials are available for the round type cable. Moreover, winding the number of turns can easily do the noise suppression effects.

■ APPLICATION

Imaging devices, audio equipment, automotive electronics, telecommunication devices, office automation equipment, and digital interface various other cables.

- Absorption EMI and penetrating noise
- Prevent parasitic oscillation

■ PART NUMBER CONSTRUCTION



■ RANGE OF USE AND STORAGE TEMPERATURE

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

* The temperature range has a different case by materials.

** The Storage temperature range is for after the circuit board is mounted.

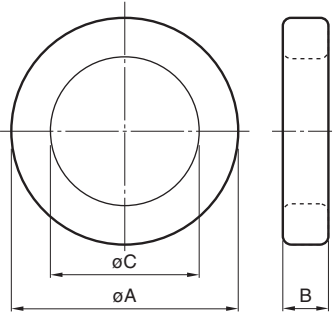
- RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://www.tdk.co.jp/rohs/>
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

• All specifications are subject to change without notice.

Ni-Zn T series



SHAPES AND DIMENSIONS



HF40	T	8	4	4	□□□□
Material	Core shape	Outer diameter dimensions(A)	Width dimensions(B)	Inner diameter dimensions(C)	Internal code

Part No.	DIMENSIONS			ELECTRICAL CHARACTERISTICS			
	øA (mm)	B	øC	Impedance Z (Ω) 23°C			
				0.1MHz	1MHz	10MHz	100MHz
HF40 T8X4X4 HF70 T8X4X4 HF90 T8X4X4	8.0±0.2	4.0±0.2	4.0±0.2	—	—	7 21 —	60 36 —
HF40 T10X3X6 HF70 T10X3X6 HF90 T10X3X6	10.0±0.3	3.0±0.2	6.0±0.2	—	—	5 10 —	38 20 —
HF40 T10X5X5 HF70 T10X5X5 HF90 T10X5X5	10.0±0.3	5.0±0.3	5.0±0.25	—	—	— 23 —	— 39 —
HF40 T12X8X7.3 HF70 T12X8X7.3 HF90 T12X8X7.3	12.0±0.3	8.0±0.3	7.3±0.2	—	—	— 28 —	— 47 —
HF40 T14X5X8 HF70 T14X5X8 HF90 T14X5X8	14.0±0.3	5.0±0.2	8.0±0.3	— 1	— 12	— — —	— — —
HF40 T14X7X8 HF70 T14X7X8 HF90 T14X7X8	14.0±0.3	7.0±0.2	8.0±0.3	— — 2	— — 18	8 29 —	65 48 —
HF40 T16X8X12 HF70 T16X8X12 HF90 T16X8X12	16.0±0.4	8.0±0.3	12.0±0.3	— — —	— — —	6 18 —	48 31 —
HF40 T18X6X10 HF70 T18X6X10 HF90 T18X6X10	18.0±0.4	6.0±0.2	10.0±0.3	— — 2	— — 16	7 24 —	61 51 —
HF40 T18X10X10 HF70 T18X10X10 HF90 T18X10X10	18.0±0.4	10.0±0.3	10.0±0.3	— — 3	— — 29	14 36 —	90 69 —
HF40 T20X10X12 HF70 T20X10X12 HF90 T20X10X12	20.0±0.4	10.0±0.3	12.0±0.3	— — —	— — —	10 34 —	65 58 —
HF40 T22X6.5X14 HF70 T22X6.5X14 HF90 T22X6.5X14	22.0±0.4	6.5±0.3	14.0±0.3	— — 2	— — 13	7 20 —	53 39 —
HF40 T22X10X14 HF70 T22X10X14 HF90 T22X10X14	22.0±0.4	10.0±0.3	14.0±0.3	— — 3	— — 22	9 30 —	62 60 —

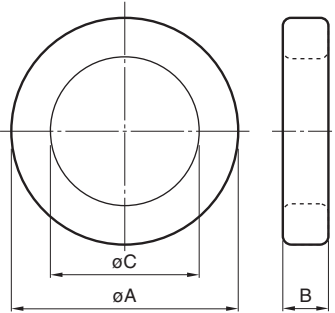
- Impedance values are reference values.
- — means that there is no item which corresponds to each Material.
- Other materials and shapes are also available in addition to standard products. Please contact us for more information.
- Sample kits with cores for evaluation are also available (EMC-A201/EMC-A202/EMC-A203/EMC-A204).

• All specifications are subject to change without notice.

Ni-Zn T series



SHAPES AND DIMENSIONS



HF40	T	25	8	15	□□□□
Material	Core shape	Outer diameter dimensions(A)	Thickness dimensions(B)	Inner diameter dimensions(C)	Internal code

Part No.	DIMENSIONS			ELECTRICAL CHARACTERISTICS			
	øA (mm)	B	øC	Impedance Z (Ω) 23°C			
				0.1MHz	1MHz	10MHz	100MHz
HF40 T25X8X15 HF70 T25X8X15 HF90 T25X8X15	25.0±0.4	8.0±0.3	15.0±0.3	— 3	— 19	— —	— —
HF40 T25X13X15 HF70 T25X13X15 HF90 T25X13X15	25.0±0.4	13.0±0.3	15.0±0.3	— 4	— 32	11 45	93 80
HF40 T28X8X16 HF70 T28X8X16 HF90 T28X8X16	28.0±0.4	8.0±0.3	16.0±0.4	— 3	— 20	— —	— —
HF40 T28X13X16 HF70 T28X13X16 HF90 T28X13X16	28.0±0.4	13.0±0.3	16.0±0.4	— 4	— 29	13 51	90 90
HF40 T29X7.5X19 HF70 T29X7.5X19 HF90 T29X7.5X19	29.0±0.4	7.5±0.3	19.0±0.5	— — —	— — —	— 23 —	— — 47
HF40 T31X8X19 HF70 T31X8X19 HF90 T31X8X19	31.0±0.5	8.0±0.4	19.0±0.5	— — —	— — —	8 28	61 52
HF40 T31X13X19 HF70 T31X13X19 HF90 T31X13X19	31.0±0.5	13.0±0.3	19.0±0.5	— — —	— — —	14 45	90 80
HF40 T38X14X22 HF70 T38X14X22 HF90 T38X14X22	38.0±0.8	14.0±0.3	22.0±0.5	— 6	— 23	— —	— —
HF40 T44.5X13X30 HF70 T44.5X13X30 HF90 T44.5X13X30	44.5±1.1	13.0±0.3	30.0±0.8	— 4	— 18	— —	— —
HF40 T62X13X39 HF70 T62X13X39 HF90 T62X13X39	62.5±1.3	13.5±0.3	39.0±0.8	— 5	— 13	— —	— —
HF40 T80X20X50 HF70 T80X20X50 HF90 T80X20X50	80.0±1.6	20.0±0.5	50.0±1.0	— 8	— 15	— —	— —
HF40 T104X20X80 HF70 T104X20X80 HF90 T104X20X80	104.0±2.1	20.0±0.5	80.0±1.6	— 4	— 10	— —	— —

- Impedance values are reference values.
- — means that there is no item which corresponds to each Material.
- Other materials and shapes are also available in addition to standard products. Please contact us for more information.
- Sample kits with cores for evaluation are also available (EMC-A201/EMC-A202/EMC-A203/EMC-A204).

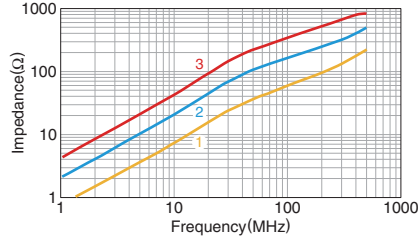
• All specifications are subject to change without notice.

Ni-Zn T series

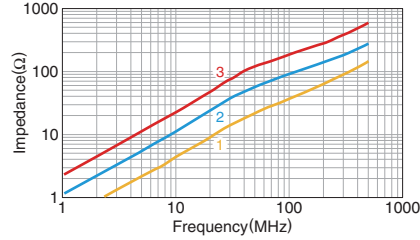
ELECTRICAL CHARACTERISTICS

IMPEDANCE VS. FREQUENCY CHARACTERISTICS

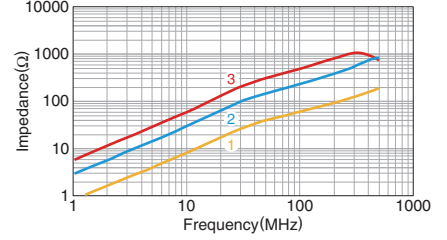
HF40T8X4X4



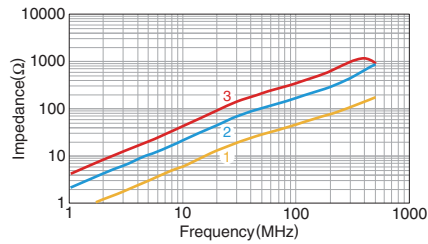
HF40T10X3X6



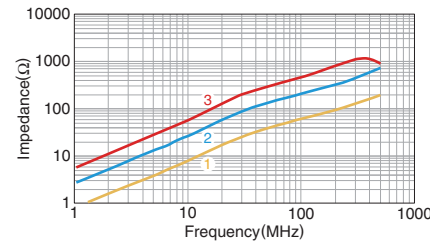
HF40T14X7X8



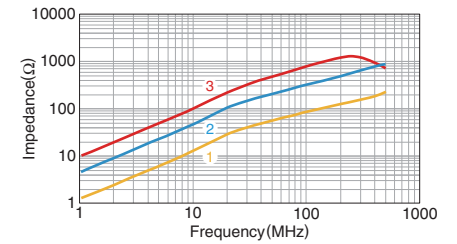
HF40T16X8X12



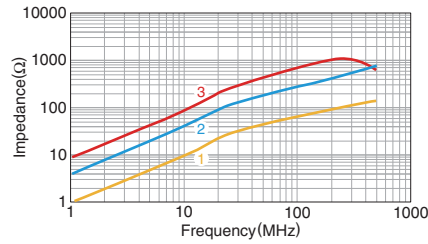
HF40T18X6X10



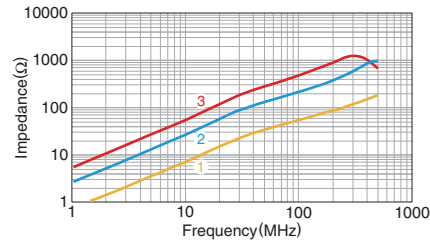
HF40T18X10X10



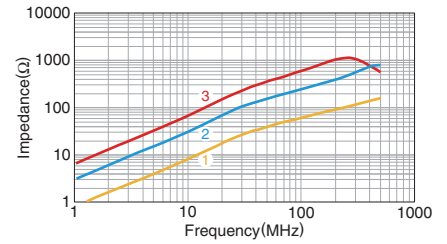
HF40T20X10X12-G



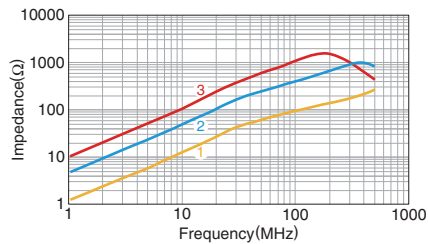
HF40T22X6.5X14



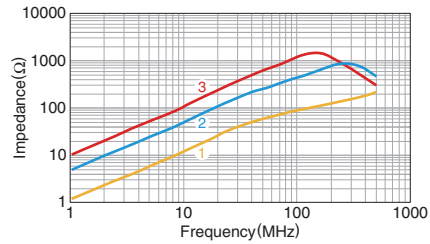
HF40T22X10X14



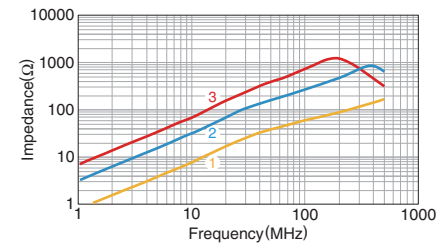
HF40T25X13X15



HF40T28X13X16



HF40T31X8X19



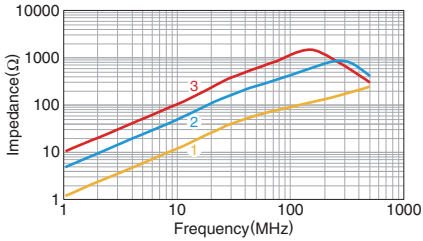
• All specifications are subject to change without notice.

Ni-Zn T series

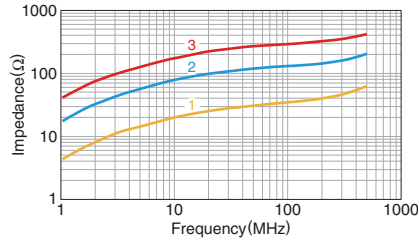
ELECTRICAL CHARACTERISTICS

IMPEDANCE VS. FREQUENCY CHARACTERISTICS

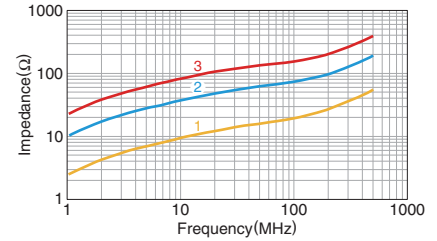
HF40T31X13X19



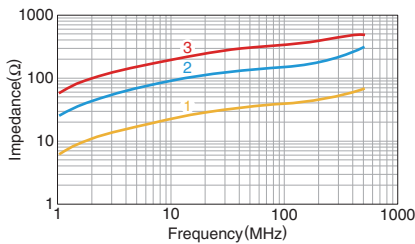
HF70T8X4X4



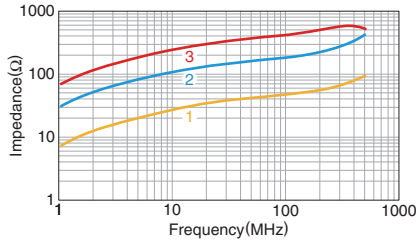
HF70T10X3X6



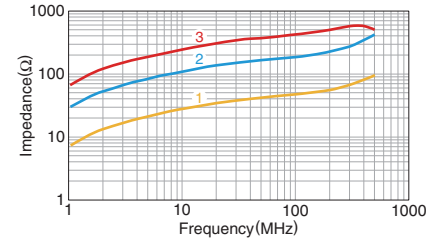
HF70T10X5X5



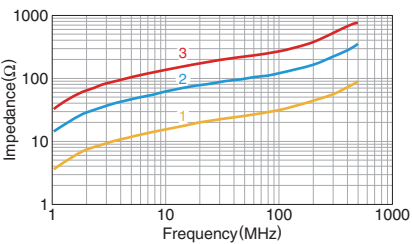
HF70T12X8X7.3



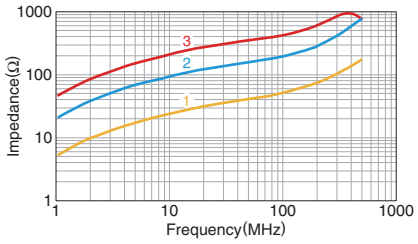
HF70T14X7X8



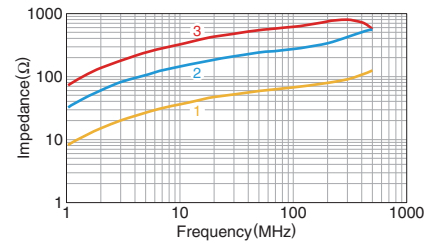
HF70T16X8X12



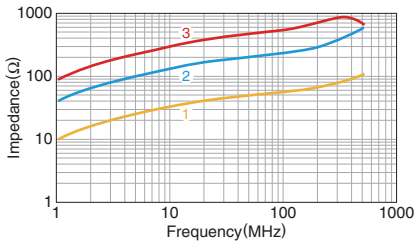
HF70T18X6X10



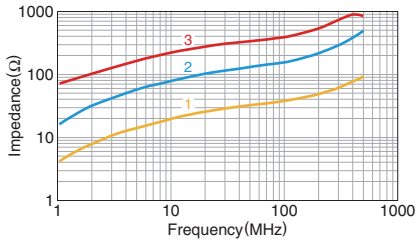
HF70T18X10X10



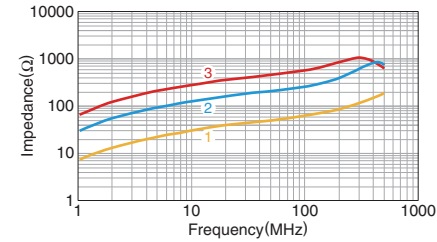
HF70T20X10X12



HF70T22X6.5X14



HF70T22X10X14



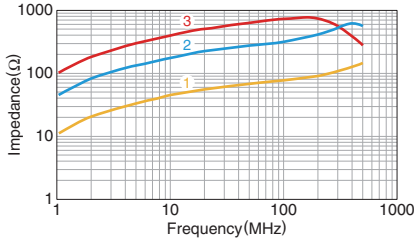
• All specifications are subject to change without notice.

Ni-Zn T series

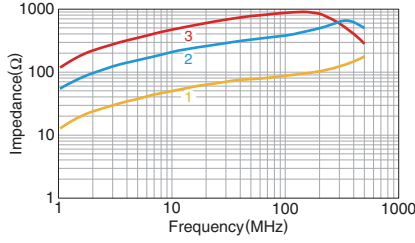
ELECTRICAL CHARACTERISTICS

IMPEDANCE VS. FREQUENCY CHARACTERISTICS

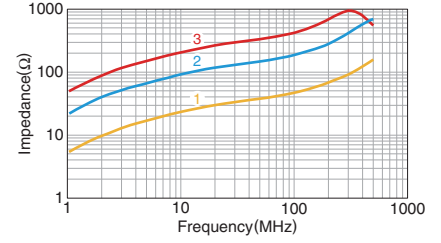
HF70T25X13X15



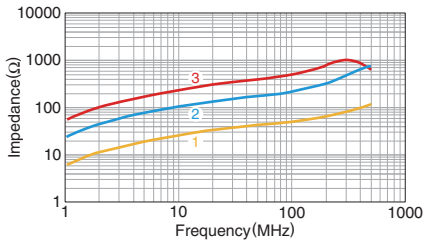
HF70T28X13X16



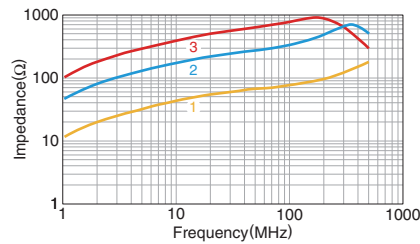
HF70T29X7.5X19



HF70T31X8X19



HF70T31X13X19



• All specifications are subject to change without notice.