

April 2018

Ni-Zn

Mn-Zn

# Ferrites for EMI suppression

# T series (Ring-shape)

# **⚠** 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
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment
- (8) Public information-processing equipment

(9) Military equipment

- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

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.

# Ferrites for EMI suppression

# **Overview of the T series**

#### FEATURES

O Select various materials according to the noise frequency.

○ The product has a wide range of sizes ranging from ø14 to ø104 outer diameters.

O Epoxy coating is also available. (HF60 and HF90 only)

#### APPLICATION

Imaging devices, audio equipment, automotive electronics, communication devices, office electronics, industrial equipment, other

O Absorption EMI and penetrating noise

O Prevent parasitic oscillation

#### PART NUMBER CONSTRUCTION

#### For general use



#### RANGE OF USE AND STORAGE TEMPERATURE

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

O RoHS Directive Compliant Product: See the following for more details. https://product.tdk.com/info/en/environment/rohs/index.html

O Halogen-free: indicates that CI content is less than 900ppm, Br content is less than 900ppm, and that the total CI and Br content is less than 1500ppm.

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

# Ni-Zn T series (HF70)

#### **SHAPE & DIMENSIONS**





Size	Outside diameter (mm)	Height (mm)	Inner diameter (mm)
HF70T14X7X8	14.0±0.3	7.0±0.2	8.0±0.3
HF70T18X10X10	18.0±0.3	10.0±0.3	10.0±0.3
HF70T22X10X14	22.0±0.4	10.0±0.3	14.0±0.3
HF70T25X13X15	25.0±0.3	13.0±0.25	15.0±0.3
HF70T28X13X16	28.0±0.4	13.0±0.3	16.0±0.4
HF70T31X13X19	31.0±0.5	13.0±0.25	19.0±0.5

\* HF30, HF40, HF56, and HF57 can also be used.

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**⊗TDK** 

# Ni-Zn T series (HF70)

#### ELECTRICAL CHARACTERISTICS

#### □ IMPEDANCE VS. FREQUENCY CHARACTERISTICS HF70T14X7X8 HF70T18X10X10





#### HF70T22X10X14



HF70T25X13X15







HF70T31X13X19



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# Mn-Zn T series (HF60)

#### **SHAPE & DIMENSIONS**





Part No.	Outside diameter (mm)	Height (mm)	Inner diameter (mm)
HF60T14X7X8	14.0±0.5	7.0±0.5	8.0±0.5
HF60T18X10X10	18.0±0.7	10.0±0.5	10.0±0.7
HF60T22X10X14	22.0±0.7	10.0±0.5	14.0±0.7
HF60T25X13X15	25.0±1.0	13.0±1.0	15.0±1.0
HF60T28X13X16	28.0±1.0	13.0±1.0	16.0±1.0
HF60T31X13X19	31.0±1.0	13.0±1.0	19.0±1.0
HF60T38X14X22	38.0±1.0	14.0±1.0	22.0±1.0
HF60T44.5X13X30	44.5±1.0	13.0±1.0	30.0±1.0
HF60T62X13X39	62.5±1.3	13.5±1.0	39.0±1.3
HF60T80X20X50	80.0±1.6	20.0±1.0	50.0±1.6
HF60T104X20X80	104.0±2.0	20.0±1.0	80.0±2.0

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# Mn-Zn T series (HF60)

#### ELECTRICAL CHARACTERISTICS

#### □ IMPEDANCE VS. FREQUENCY CHARACTERISTICS HF60T14X7X8 HF60T18X10X10





#### HF60T22X10X14



#### HF60T25X13X15



#### HF60T28X13X16



#### HF60T31X13X19



#### HF60T38X14X22



#### HF60T80X20X50



#### HF60T44.5X13X30



#### HF60T104X20X80



#### HF60T62X13X39



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# Mn-Zn T series (HF90)

#### **SHAPE & DIMENSIONS**





Part No.	Outside diameter (mm)	Height (mm)	Inner diameter (mm)
HF90T14X7X8	14.0±0.3	7.0±0.2	8.0±0.3
HF90T18X10X10	18.0±0.4	10.0±0.3	10.0±0.3
HF90T22X10X14	22.0±0.4	10.0±0.3	14.0±0.3
HF90T25X13X15	25.0±0.4	13.0±0.3	15.0±0.3
HF90T28X13X16	28.0±0.4	13.0±0.3	16.0±0.4
HF90T31X13X19	31.0±0.5	13.0±0.3	19.0±0.4
HF90T38X14X22	38.0±0.8	14.0±0.3	22.0±0.5
HF90T44.5X13X30	44.5±1.1	13.0±0.5	30.0±0.8
HF90T62X13X39	62.5±1.3	13.5±0.5	39.0±0.8
HF90T80X20X50	80.0±1.6	20.0±0.5	50.0±1.0
HF90T104X20X80	104.0±2.0	20.0±0.5	80.0±1.6

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# Mn-Zn T series (HF90)

#### ELECTRICAL CHARACTERISTICS

#### □ IMPEDANCE VS. FREQUENCY CHARACTERISTICS HF90T14X7X8 HF90T18X10X10





#### HF90T22X10X14



#### HF90T25X13X15



#### HF90T28X13X16



#### HF90T31X13X19



#### HF90T38X14X22



#### HF90T80X20X50



#### HF90T44.5X13X30



#### HF90T62X13X39



#### HF90T104X20X80

