

Ferrite Cores for EMI Suppression

Material Characteristics



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.

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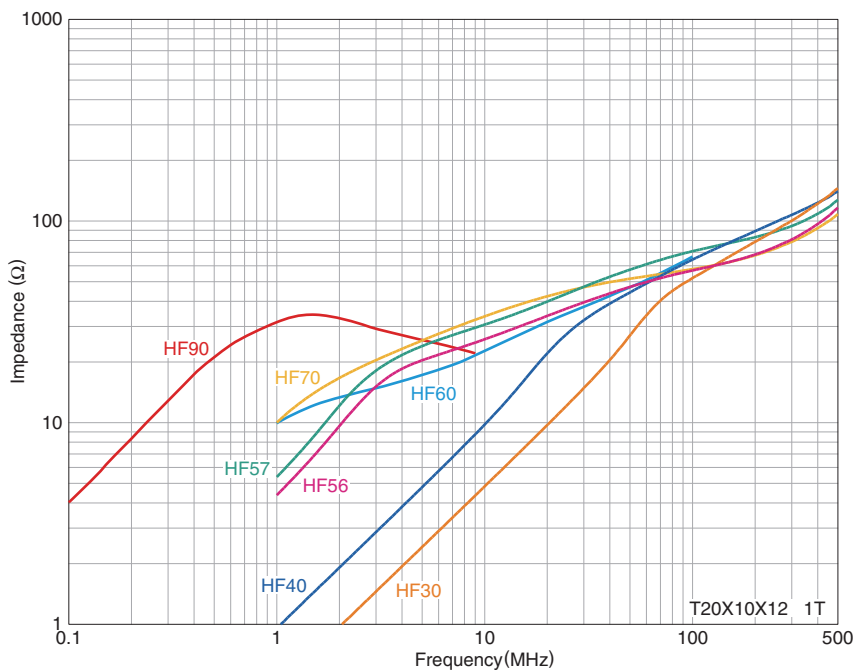
• All specifications are subject to change without notice.

Material List of Ferrite Cores for EMI Suppression

MATERIAL CHARACTERISTICS

Material	Material affiliates	Initial permeability μ_i	Temperature factor of initial permeability $\alpha\mu_{ir}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
HF90	Mn-Zn	5000	—	>165	485[H=1194A/m]	0.3
HF60	Mn-Zn	1600	—	>130	300[H=1194A/m]	4
HF70	Ni-Zn	1500	1 to 6	>100	280[H=1600A/m]	10^5
HF57	Ni-Zn	600	3 to 15	>150	370[H=4000A/m]	10^5
HF56	Ni-Zn	600	18 to 28	>130	290[H=4000A/m]	10^5
HF40	Ni-Zn	120	8 to 18	>250	410[H=4000A/m]	10^5
HF30	Ni-Zn	45	5 to 15	>300	320[H=4000A/m]	10^5

IMPEDANCE vs. FREQUENCY CHARACTERISTICS

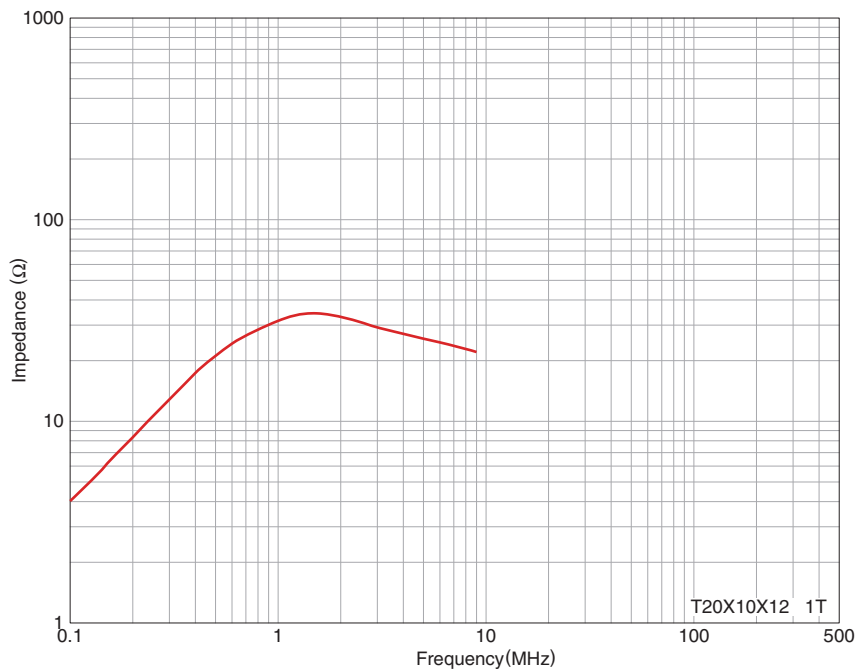


Ferrite Cores for EMI Suppression **Material List of HF90**

■ MATERIAL CHARACTERISTICS (Mn-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
5000	—	>165	485[H=1194A/m]	0.3

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

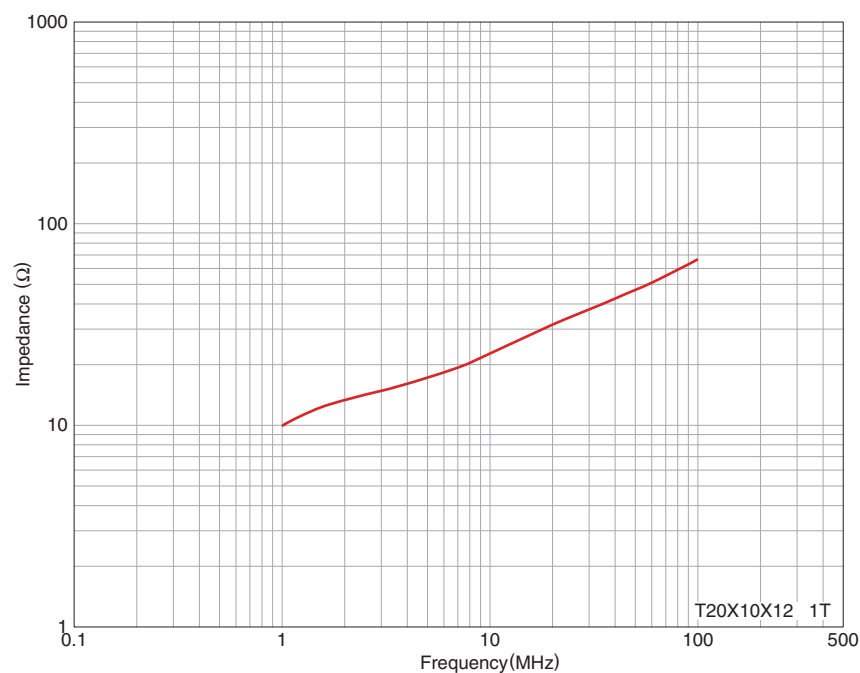


Ferrite Cores for EMI Suppression **Material List of HF60**

■ MATERIAL CHARACTERISTICS (Mn-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
1600	—	>130	300[H=1194A/m]	4

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

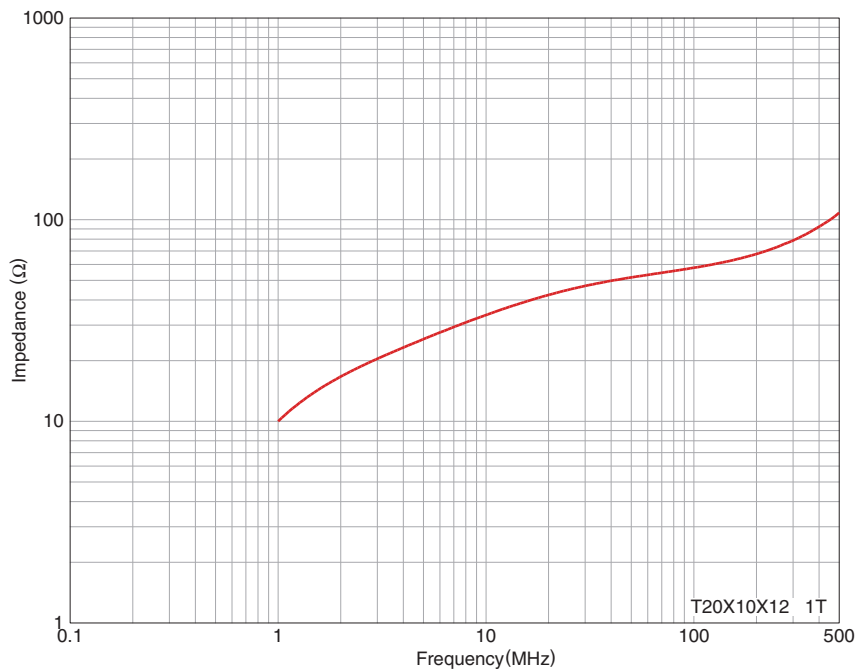


Ferrite Cores for EMI Suppression **Material List of HF70**

■ MATERIAL CHARACTERISTICS (Ni-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
1500	1 to 6	>100	280[H=1600A/m]	10^5

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

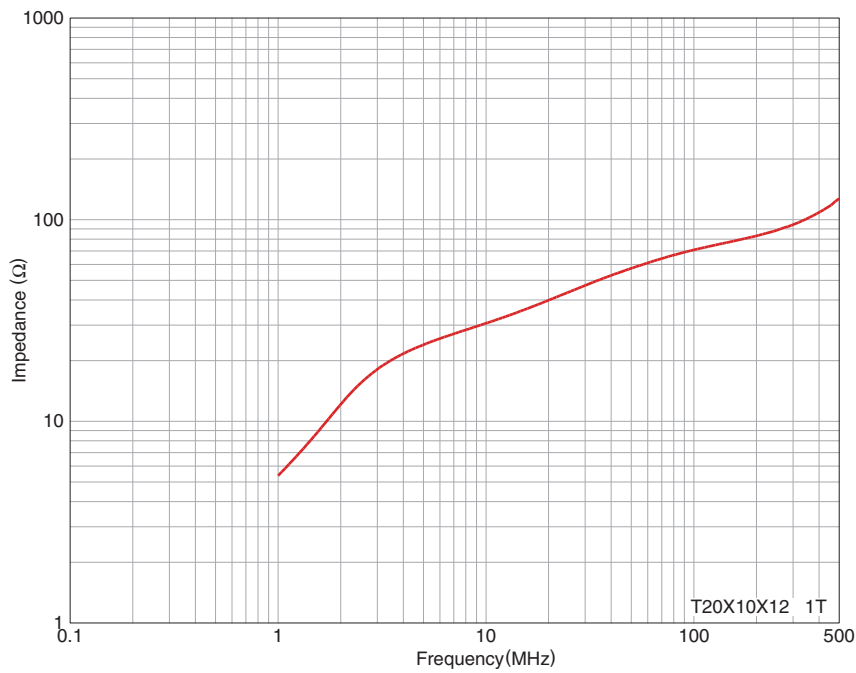


Ferrite Cores for EMI Suppression **Material List of HF57**

■ MATERIAL CHARACTERISTICS (Ni-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
600	3 to 15	>150	370[H=4000A/m]	10^5

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

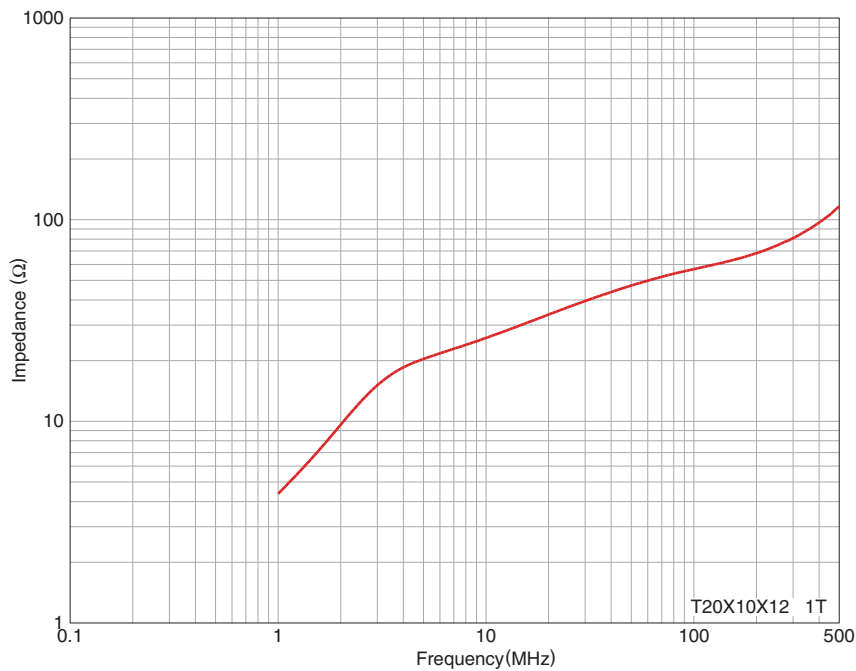


Ferrite Cores for EMI Suppression **Material List of HF56**

■ MATERIAL CHARACTERISTICS (Ni-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
600	18 to 28	>130	290[H=4000A/m]	10^5

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

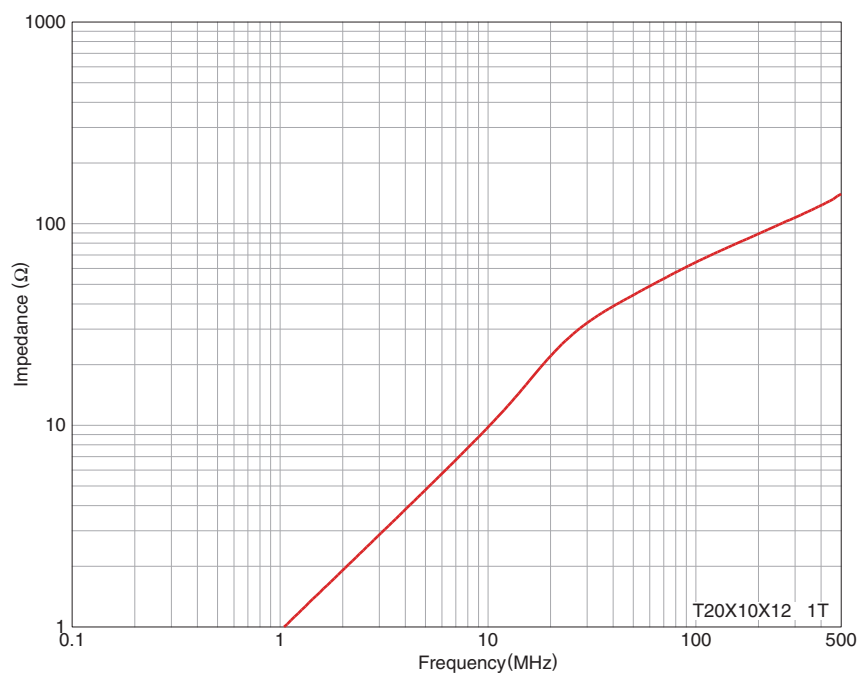


Ferrite Cores for EMI Suppression **Material List of HF40**

■ MATERIAL CHARACTERISTICS (Ni-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
120	8 to 18	>250	410[H=4000A/m]	10^5

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS



Ferrite Cores for EMI Suppression **Material List of HF30**

■ MATERIAL CHARACTERISTICS (Ni-Zn)

Initial permeability μ_i	Temperature factor of initial permeability $\alpha_{\mu i r}$ (°C) $\times 10^3$	Curie temperature T_c (°C)	Saturation magnetic flux density B_s (mT)	Electrical resistivity ρ ($\Omega \cdot m$)
45	5 to 15	>300	320[H=4000A/m]	10^5

□ IMPEDANCE vs. FREQUENCY CHARACTERISTICS

