Niterra
Niterra Materials

Highly Permeable Core NZK Series
for common mode choke

High permeability and impedance are achieved across the high frequency range.
(Compared to our conventional nanocrystalline materials)
High permeability has been realized with a fine nanocrystalline material,
enabling enhanced noise suppression with reduced size and weight.

Characteristics

High permeability
Specific permeability of μ 30,000 (100 kHz)

Reduced size and weight
Increased permeability allows for reduction in the number of turns,
and in the size and weight of the core.

Enhanced temperature characteristics
Stable noise suppression across a wide temperature range.

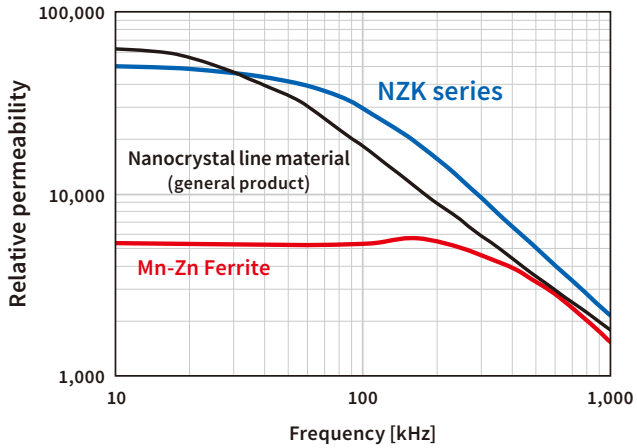
Applications

Various inverters, switching power supplies, power conditioners, etc.

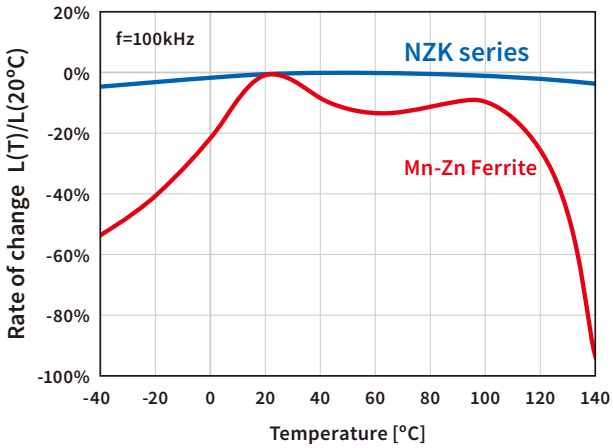
Magnetic properties (Representative values)

Materials	Saturation magnetic flux density *1) Bs [T]	Relative permeability		Core loss *2) Pfe [kW/m³]
		μ 10kHz	μ 100kHz	
NZK series	1.2	50,000	30,000	200
Nanocrystalline (cf. our conventional products)	1.2	70,000	17,000	300
Mn-Zn Ferrite	0.4	5,000	5,000	700

*1) DC magnetic properties Hm = 800 A/m *2) 100 kHz, 0.2 T, room temperature



Relative permeability-Frequency Characteristics



Inductance-Temperature Characteristic

Specifications (Representative values)

Toroidal core

Product name	Finished product dimensions [mm]			AL value [μH/N²] *3) 100kHz [±20%]	Case shape	Insulated exterior ※4)
	A [max.]	B [min.]	C [max.]			
NZK2515GW	28.5	12.6	17.6	36	Fig.1	Black PBT material
NZK3723GW	40.6	19.4	18.1	34	Fig.1	

*3)Measurement conditions:1V, 1turn, room temperature *4)UL standard 94V-0 authorized material

Separator core, Core with stand

Product name	Finished product dimensions [mm]			AL value [μH/N²] *3) 100kHz [±20%]	Case shape	Insulated exterior ※4)
	A [max.]	B [min.]	C [max.]			
NZK2515EWS	27.7	12.3	22.0	29	Fig.2	White PBT material
NZK3723GWS	42.0	19.8	26.0	34	Fig.2	Black PBT material
NZK3120EWD	33.8	40.8	27.2	25	Fig.3	White PBT material

*3)Measurement conditions:1V, 1turn, room temperature *4)UL standard 94V-0 authorized material

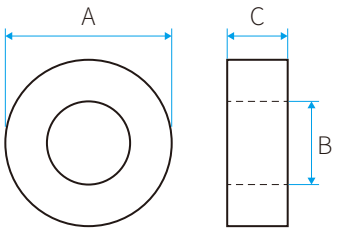


Fig.1

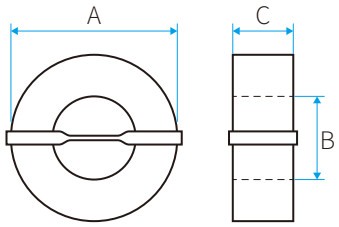


Fig.2

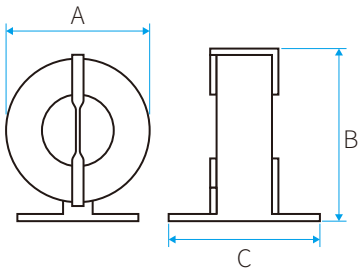
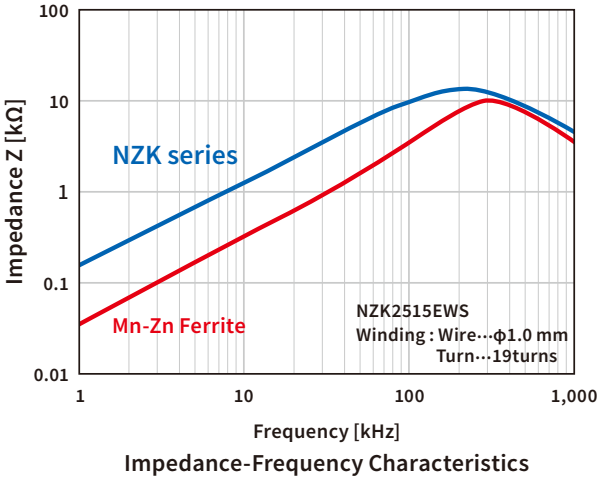
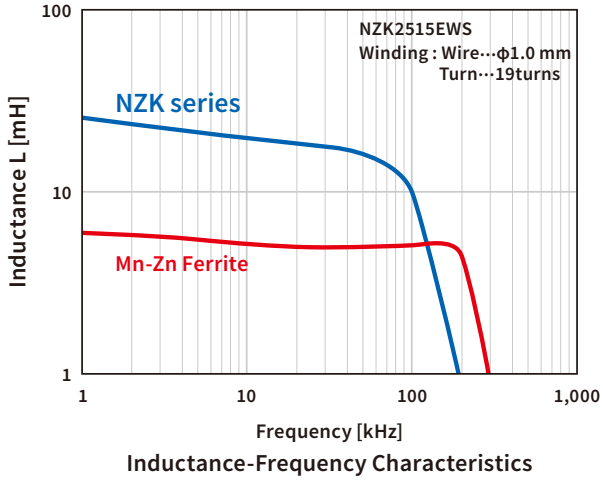


Fig.3

Frequency characteristics (Representative values)



Impedance-Frequency Characteristics



Inductance-Frequency Characteristics

• Regarding design and usage, please confirm the latest information concerning these products, and comply with the manuals, etc. for the equipment on which they are used.