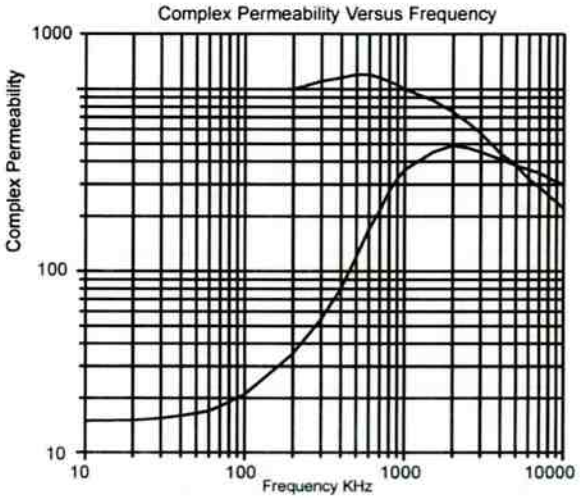
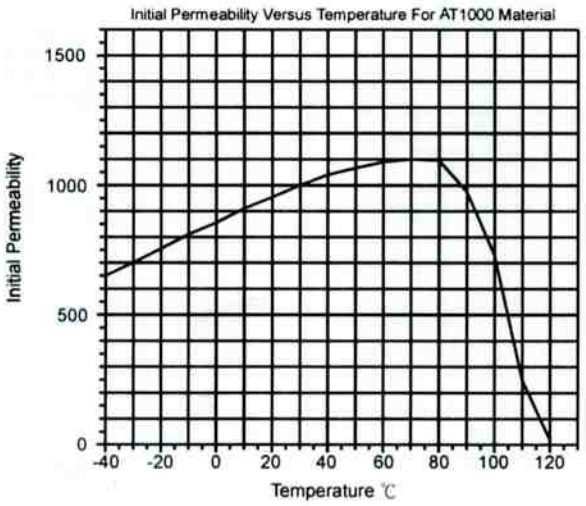
AT1000 MATERIAL

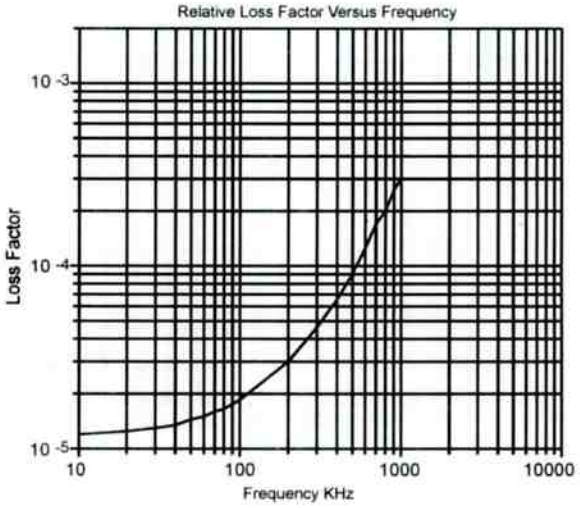
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT1000
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	1000 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	260
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	165
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	53
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 500kHz 25℃ 1000kHz	10^{-6}	130 350
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	3 to 6.5
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	120
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	-----

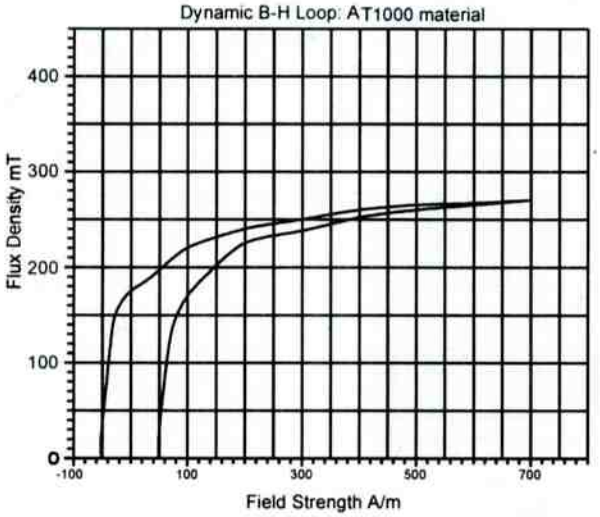
A high permeability nickel zinc ferrite having low losses up to 1MHz. The material gives high impedances in the range 10MHz to 100MHz and is particularly suited for suppression.
Core shapes available include SMD beads, Rings and Tubes.

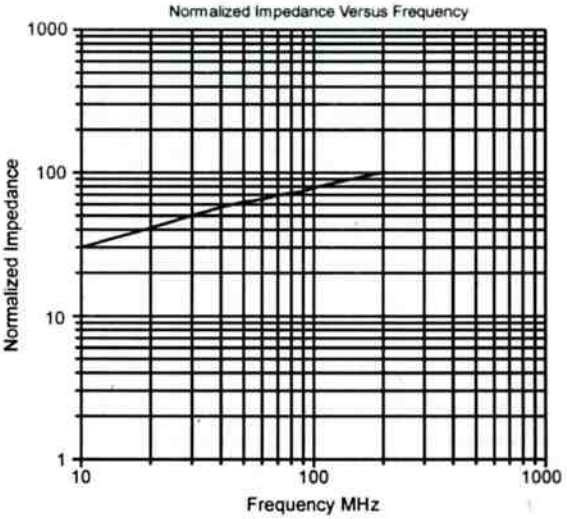
AT1000 MATERIAL







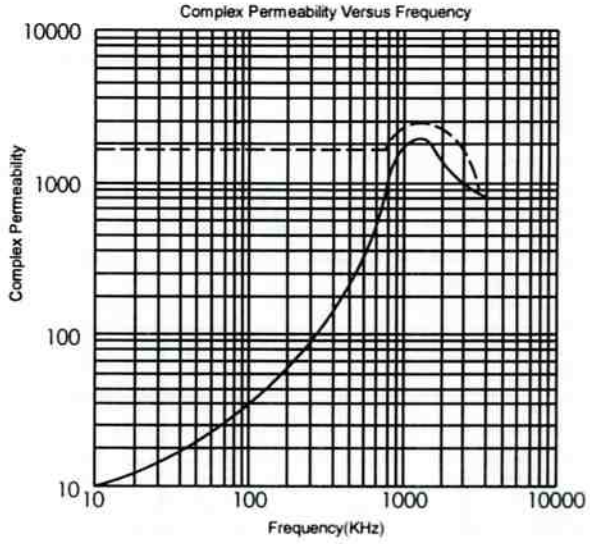


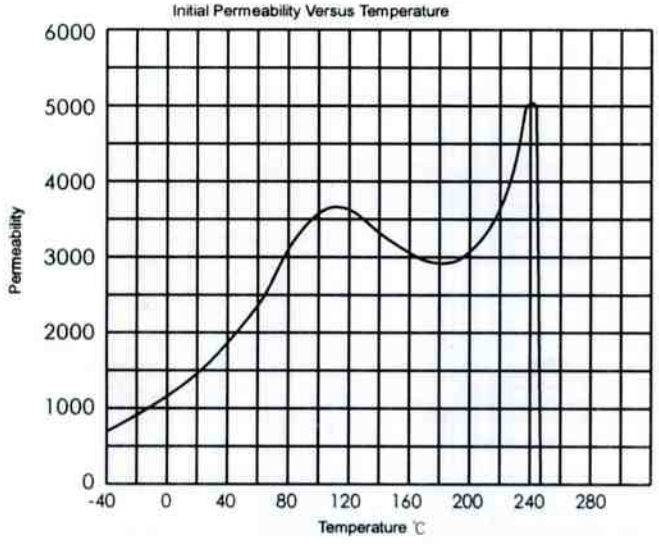


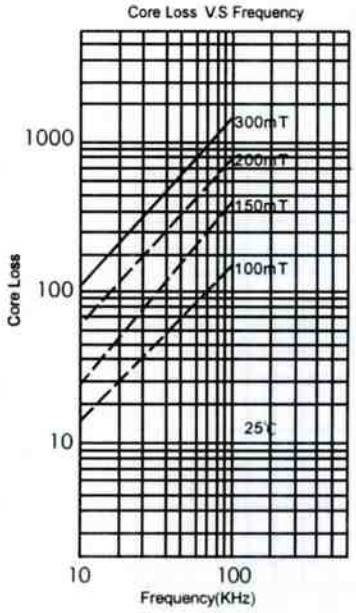
AT1900 MATERIAL

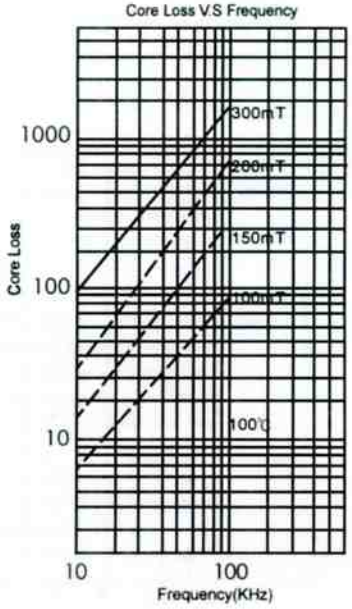
AT1900 MATERIAL

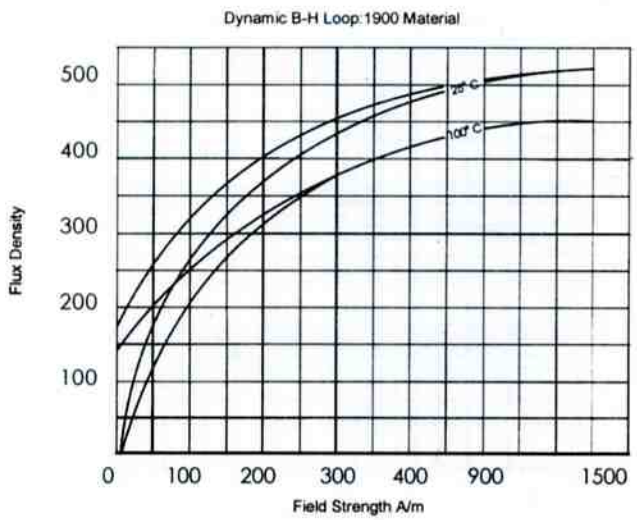
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT1900
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	1900 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃ 100℃	mT	510 410
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	180
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	15
Loss Factor (maximum)	$\frac{\tan\delta}{\mu_i}$	25℃ to 55℃ B<0.1mT 10kHz	10^{-6}	2.5
Core Loss Density	P_c	16kHz 25℃ 100℃ 25kHz 25℃ 100℃	Kw/m^3	95 60 140 95
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	>240
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	1.0

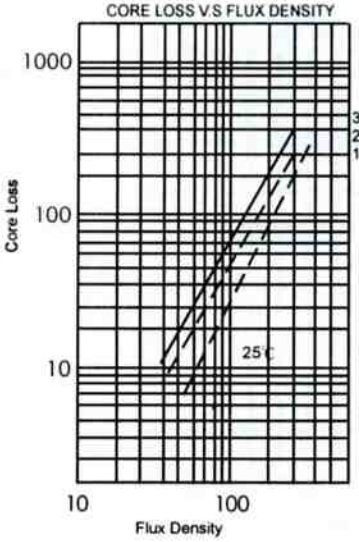


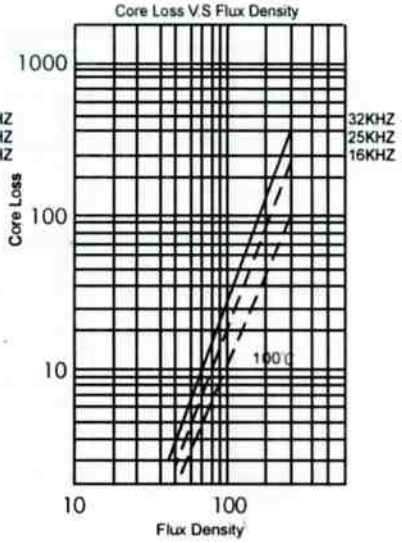










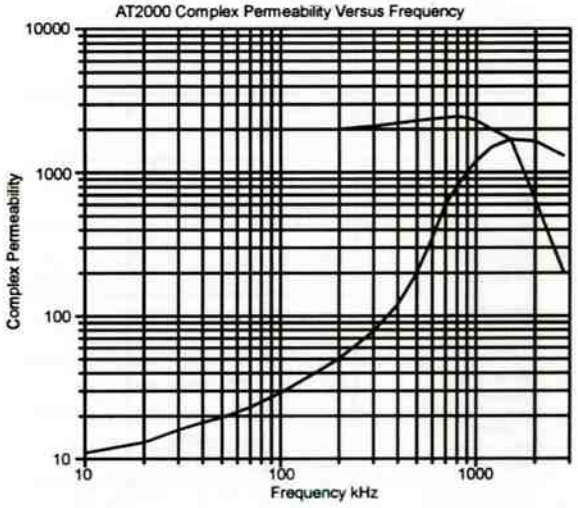


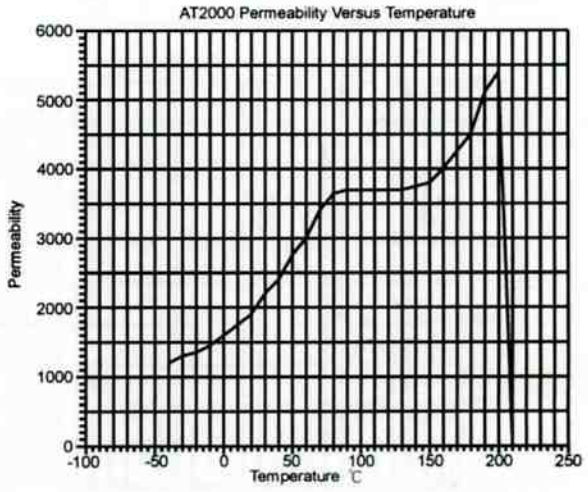
AT2000 MATERIAL

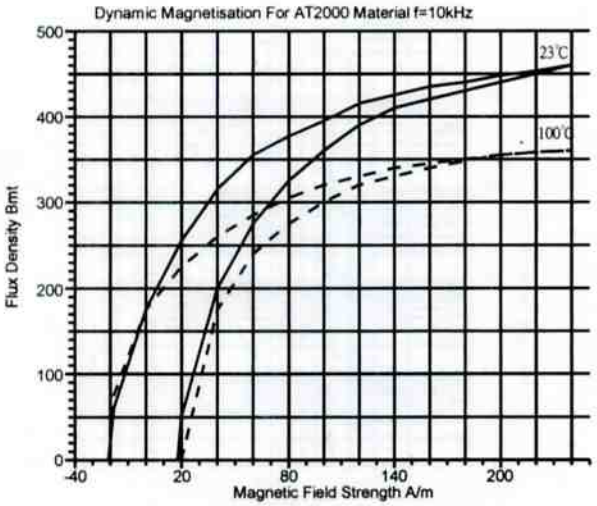
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT2000
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	2000 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃ 100℃	mT	470 350
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	200
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	22
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 100kHz 25℃	10^{-6}	-----
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	200
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100
Amplitude Permeability (minimum)	μ_a	400mT 25℃ 340mT 100℃	-----	2400 1825
Total Power Loss Density (maximum)	P_v	200mT 16kHz 25℃ 200mT 16kHz 60℃ 200mT 16kHz 100℃ 200mT 25kHz 60℃ 200mT 100kHz 100℃	mW/cc	120 110 110 190 190

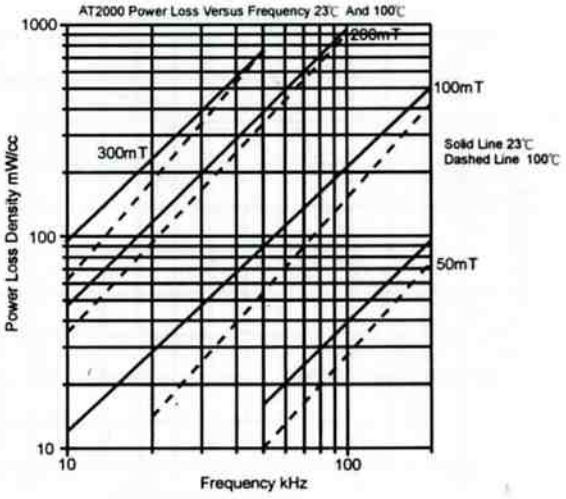
A general purpose manganese zinc ferrite for power supply applications. Losses are minimised in the range 60°C--100°C. Typical applications include switched mode power supplies and EHT transformers.

AT2000 MATERIAL







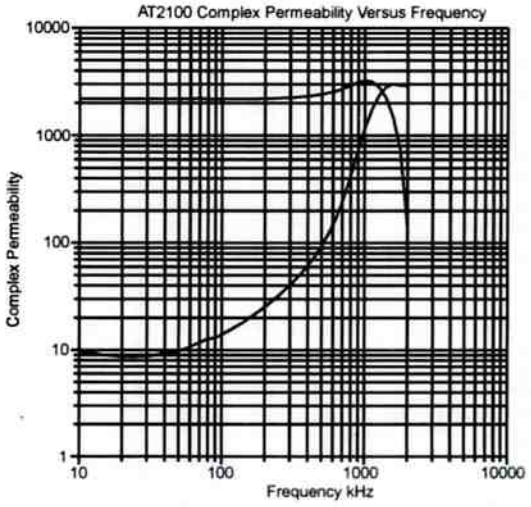


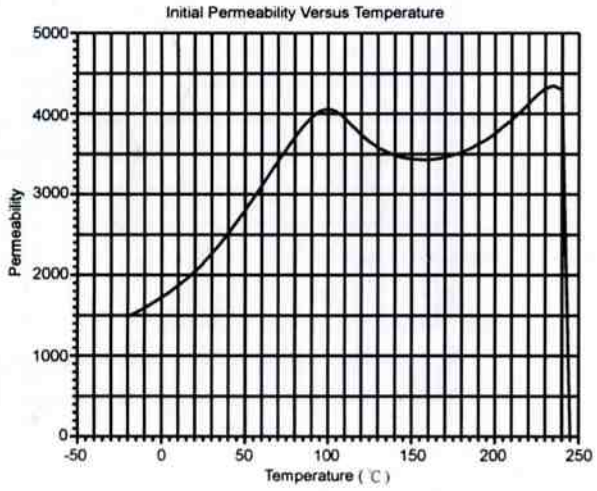
AT2100 MATERIAL

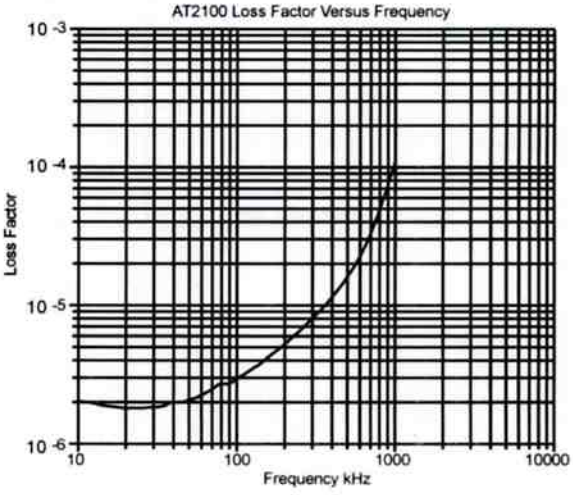
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT2100
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	2100 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃ 100℃	mT	 500 400
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	270
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	27
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	-----
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	230
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100
Amplitude Permeability (minimum)	μ_a	400mT 25℃ 340mT 100℃	-----	2500 1900
Total Power Loss Density (maximum)	P_v	200mT 25kHz 25℃ 200mT 25kHz 100℃ 100mT 100kHz 25℃ 100mT 100kHz 100℃ 200mT 100kHz 100℃	mW/cc	200 130 250 160 750

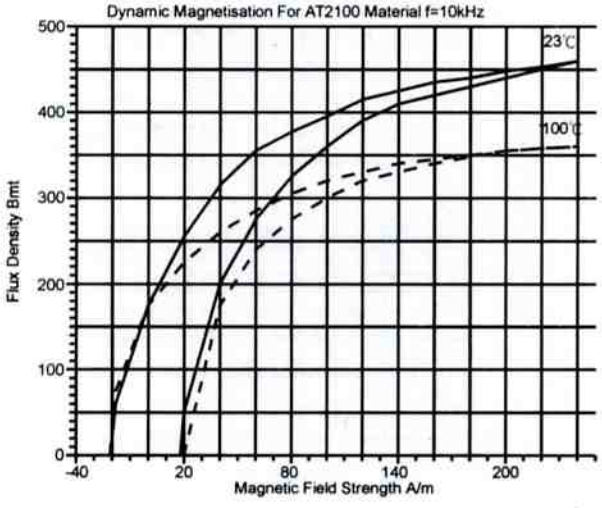
A low power loss material with high saturation. Designed for use at frequencies up to 350kHz. The power loss is minimised above 75°C. Typical applications include output chokes, SMPS and EHT cores.
Core shapes available include ETD, E,EFD and RM.

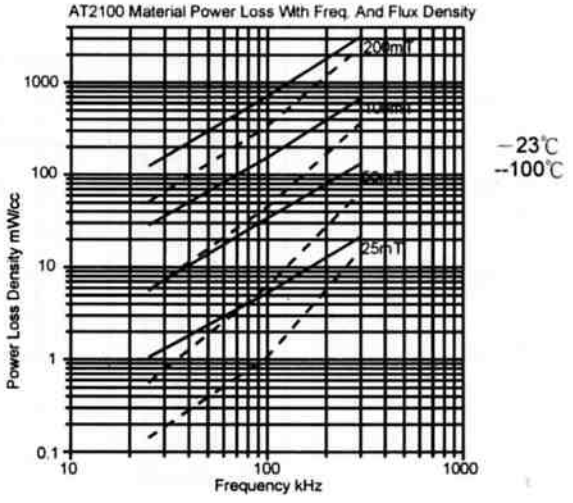
AT2100 MATERIAL









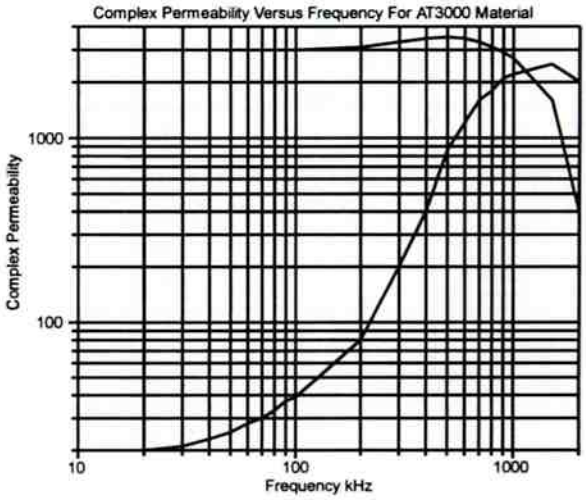


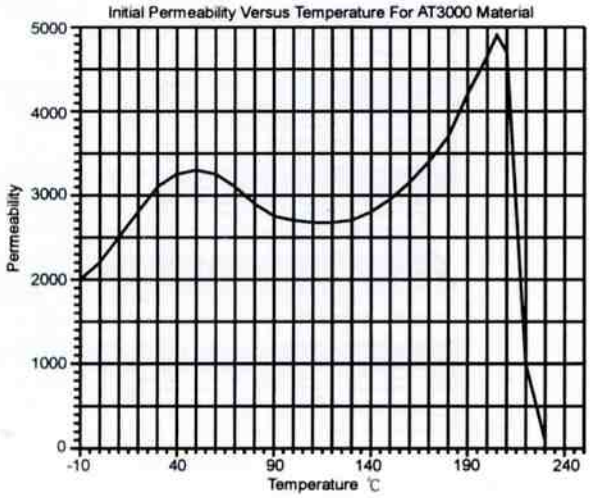
AT3000 MATERIAL

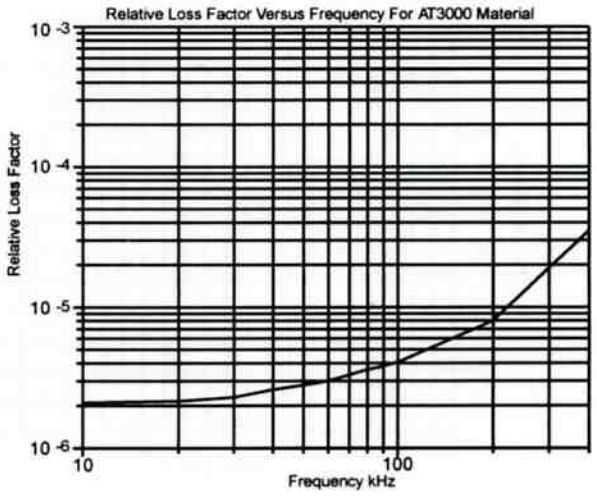
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT3000
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	3000 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃ 100℃	mT	 460 330
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	150
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	18
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	-----
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	180
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100
Amplitude Permeability (minimum)	μ_a	400mT 25℃ 340mT 100℃	-----	2400 -----
Total Power Loss Density (maximum)	P_v	200mT 16kHz 25℃ 200mT 16kHz 60℃ 200mT 16kHz 100℃ 200mT 25kHz 60℃ 200mT 100kHz 100℃	mW/cc	120 110 110 190 190

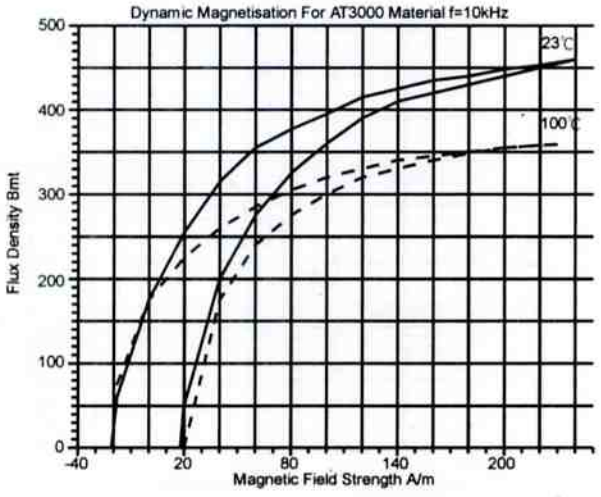
AT3000 is a Manganese Zinc soft ferrite for power and filter applications. The power loss minimum is around 60°C. Core shapes available include E cores and Ring cores.

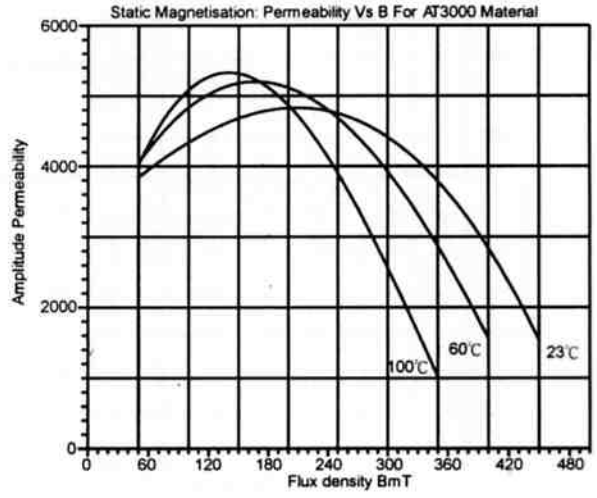
AT3000 MATERIAL









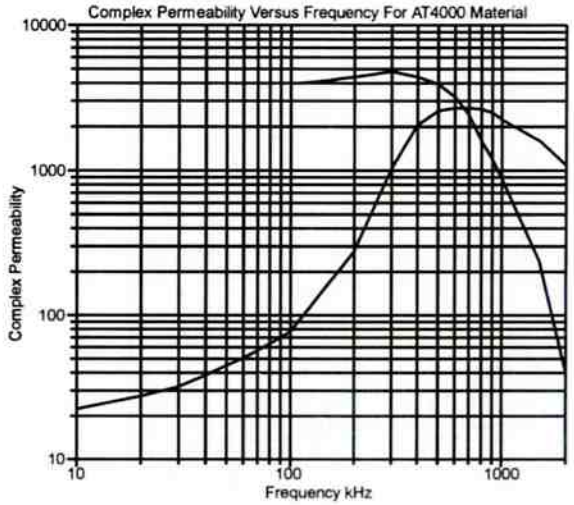


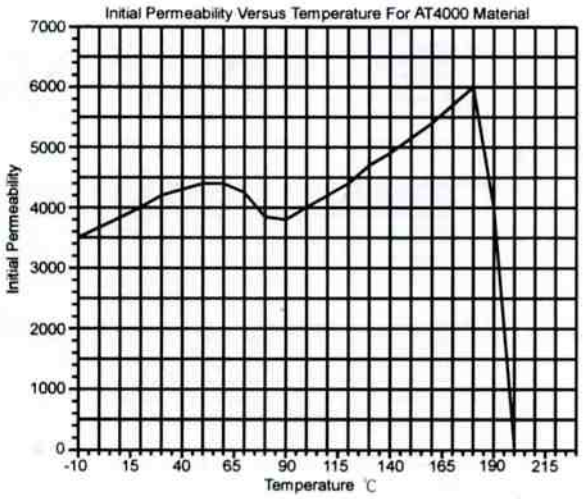
AT4000 MATERIAL

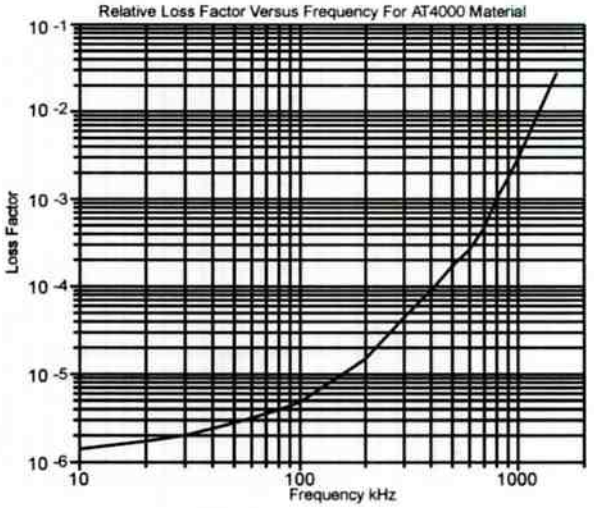
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT4000
Initial Permeability (nominal)	μ i	B<=0.1mT 10kHz 25℃	---	4000 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	380
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	180
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	14
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	20
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	130
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	1.1
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	20

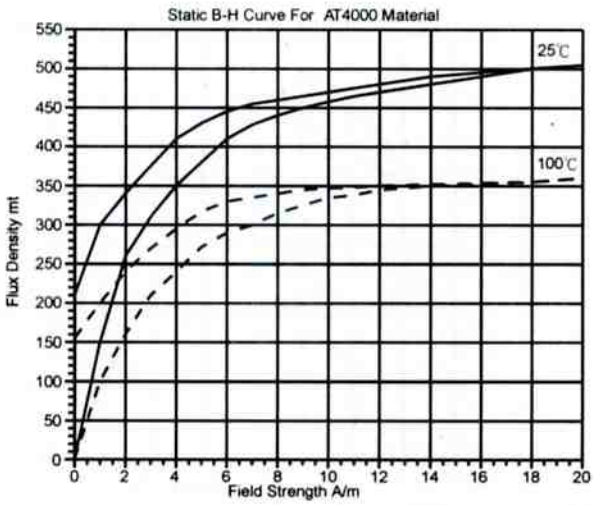
A high saturation wide band manganese zinc ferrite.
Typical applications include pulse transformers, filter circuits, and impeder cores.
Core shapes include Ring cores, EP and RM, Pot cores

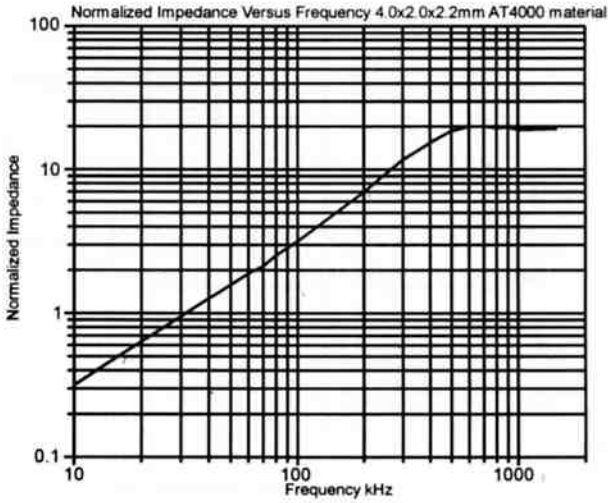
AT4000 MATERIAL









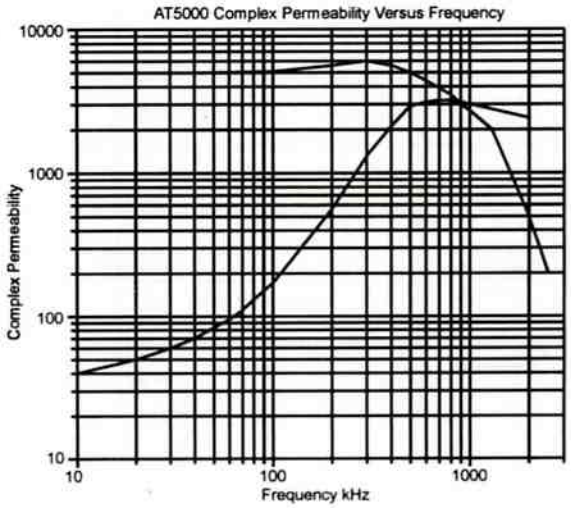


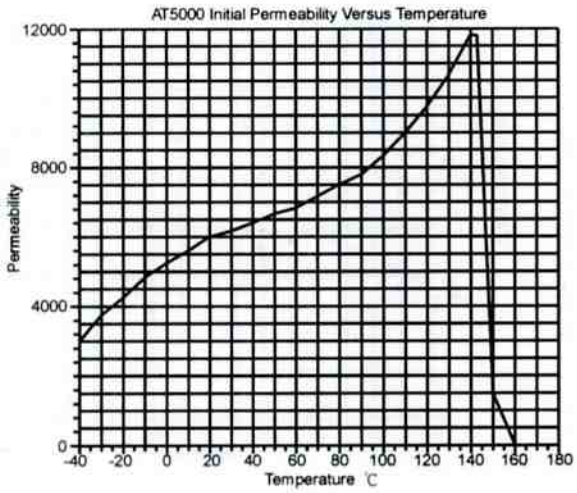
AT5000 MATERIAL

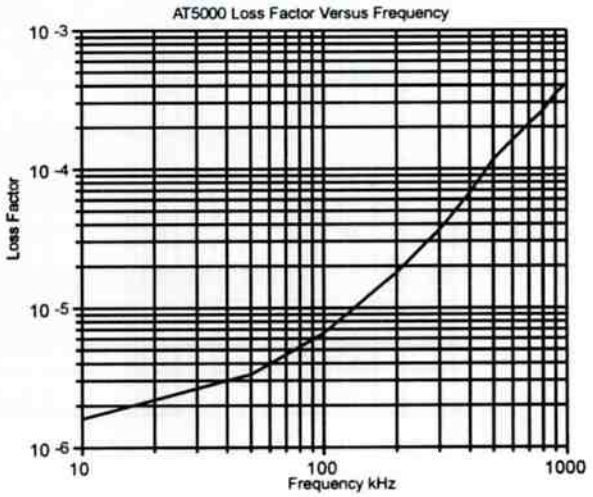
A wide band manganese zinc ferrite . AT5000 has low losses at frequencies below 100kHz, typical applications include mains filtering and pulse transformers.
Typical core shapes include Rings, EP and RM cores.

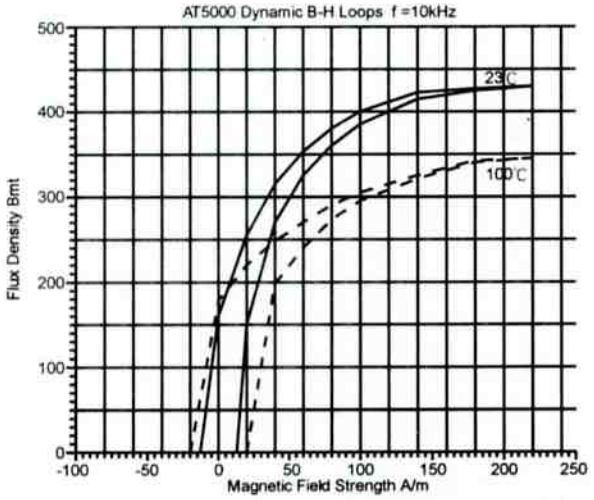
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT5000
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	5000 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	460
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	170
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	12
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	20
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-1 to +2
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	160
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	1.1
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	20

AT5000 MATERIAL







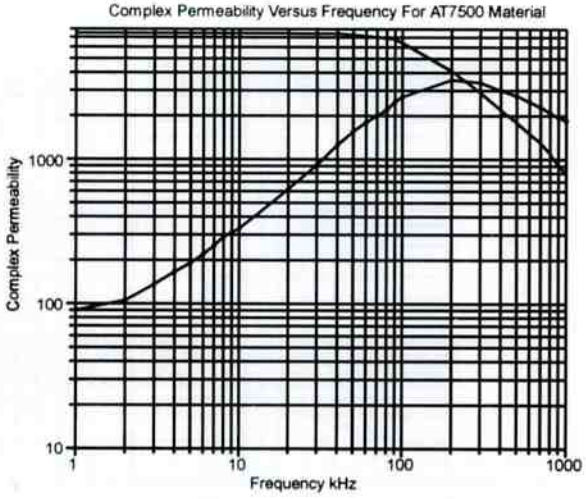


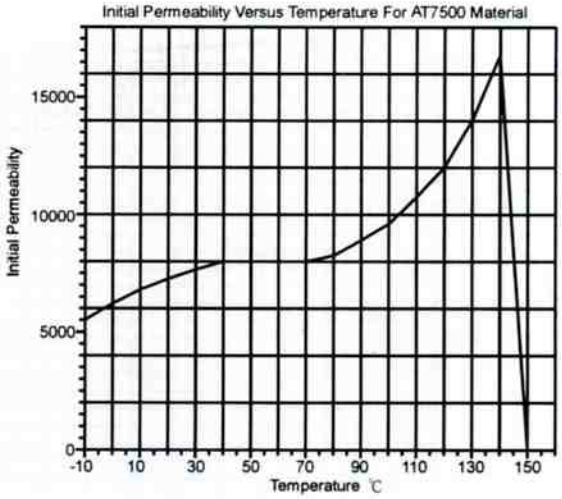
AT7500 MATERIAL

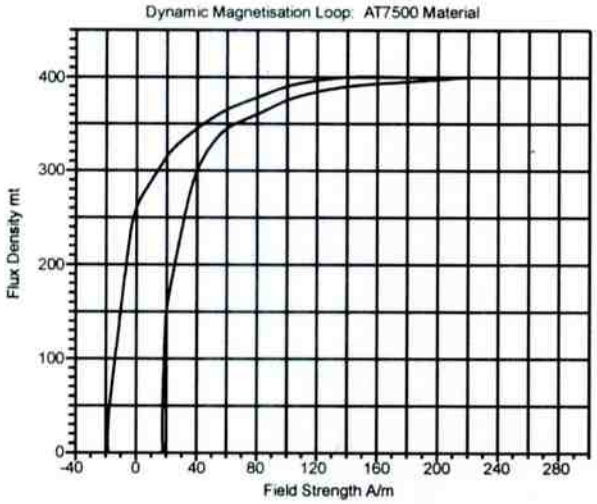
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT7500
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	7500 +/-25%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	380
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	250
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	18
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	-----
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	130
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100

A high permeability manganese zinc ferrite. AT7500 is suitable for wideband, pulse and filter applications. Typical core shapes Rings, EP and RM.

AT7500 MATERIAL





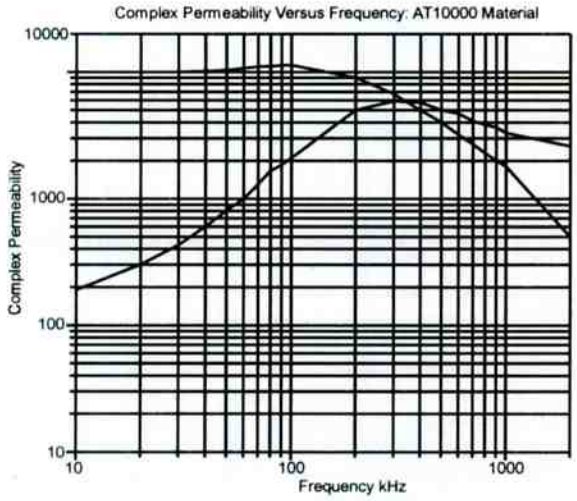


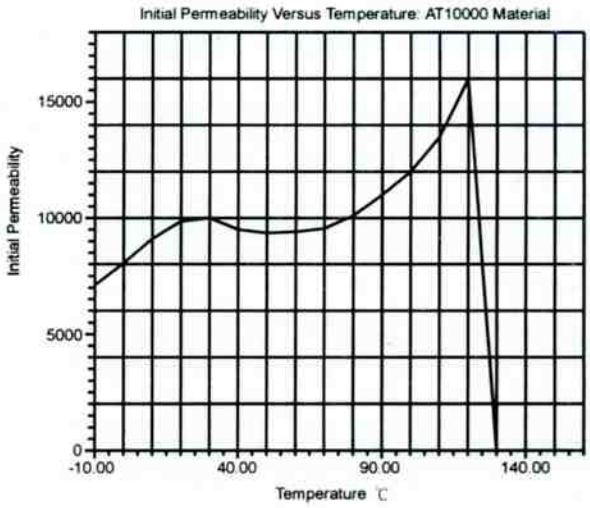
AT10000 MATERIAL

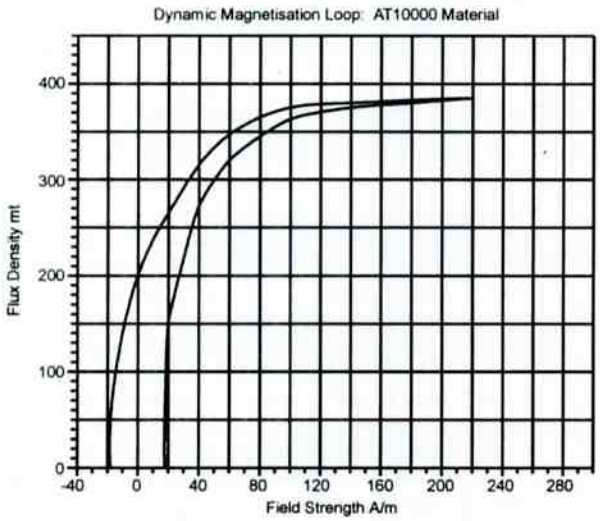
PARAMETER	SYMBOL	Standard Conditions of test	UNIT	AT10000
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	10000 +/-30%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	380
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	200
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	17
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 25℃ 100kHz	10^{-6}	-----
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	-----
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	125
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	-----
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100

A high permeability manganese zinc ferrite. AT10000 is ideal for wideband and pulsed applications such as LAN networks. Typical core shape are Ring cores.

AT10000 MATERIAL







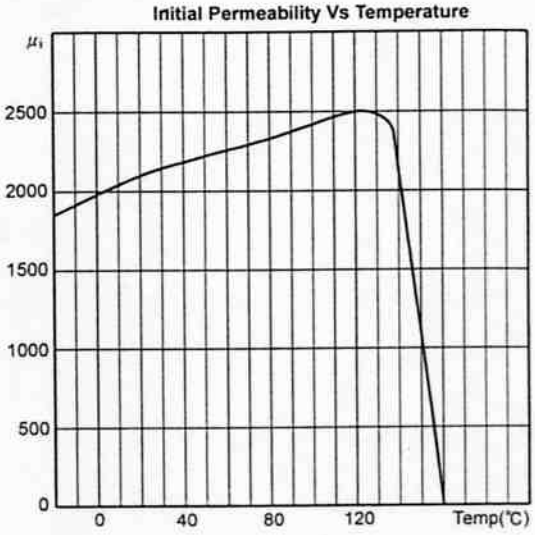
T1 MATERIAL

PARAMETER	SYMBOL	Standard Conditions of test	UNIT	T1
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	2200 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	390
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	40
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	8
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 150kHz 25℃ 10kHz	10^{-6}	<2.5 <0.8
Temperature Factor	$\frac{\Delta\mu}{\mu_1^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	0.4 to 1.0
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	150
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	0.45
Disaccommodation Factor (maximum)	$\frac{\Delta\mu}{\mu_1^2\log_{10}(t_2/t_1)}$	6 to 60 mins. 50℃ B<=0.25mT 10kHz	10^{-6}	3.0
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100

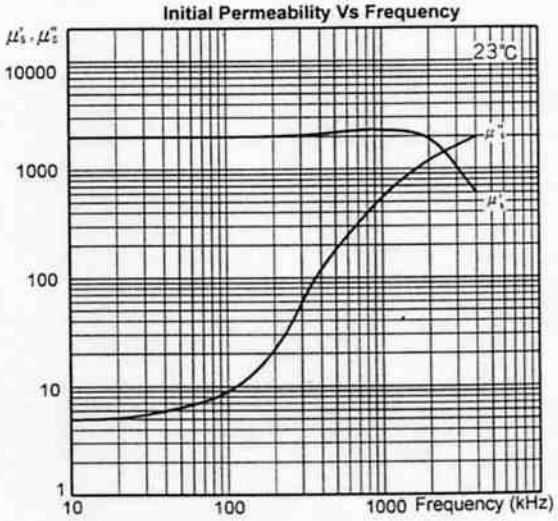
A very low loss Manganese-Zinc ferrite with very stable inductance versus temperature characteristic. Ideal for filter networks, resonant coils and proximity detection.

T1 MATERIAL

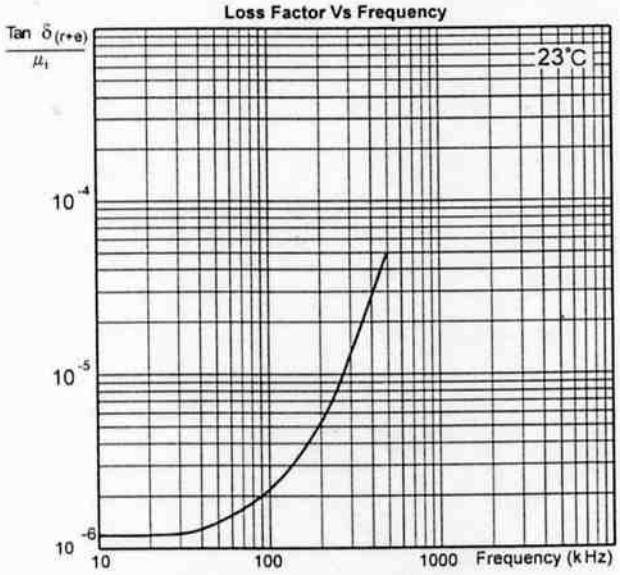
Initial Permeability Vs Temperature



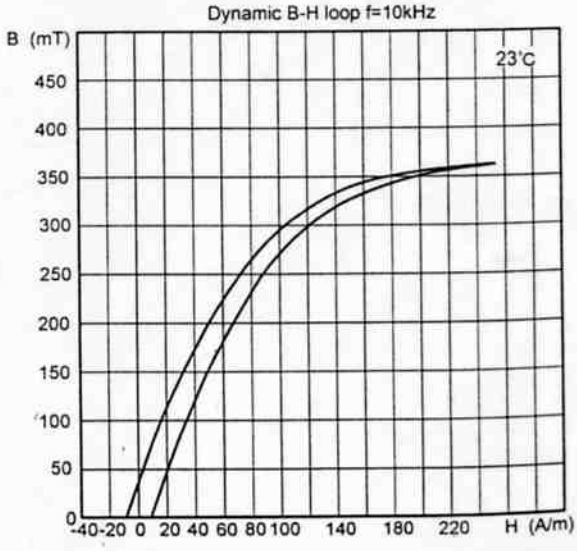
Initial Permeability Vs Frequency



Loss Factor Vs Frequency



Dynamic B-H loop f=10kHz



T2 MATERIAL

PARAMETER	SYMBOL	Standard Conditions of test	UNIT	T2
Initial Permeability (nominal)	μi	B<=0.1mT 10kHz 25℃	---	2700 +/-20%
Saturation Flux Density (typical)	B_{sat}	H=796 A/m =10 Oe 25℃	mT	390
Remanent Flux Density (typical)	B_{rem}	H → 0 (from near saturation) 10kHz 25℃	mT	50
Coercivity (typical)	H_c	B → 0 (from near saturation) 10kHz 25℃	A/m	10
Loss Factor (maximum)	$\frac{\tan\delta\,(r+e)}{\mu_i}$	B<0.1mT 100kHz 25℃ 10kHz	10^{-6}	<3.5 <1.0
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2\Delta T}$	+25℃ to +55℃ B<0.1mT 10kHz	10^{-6}/℃	0.4 to 1.5
Curie Temperature (minimum)	θ_c	B<0.1mT 10kHz	℃	150
Hysteresis Material Constant (max)	η_B	B from 1.5 to 3.0mT 10kHz 25℃	10^{-6}/mT	0.60
Disaccommodation Factor (maximum)	$\frac{\Delta\mu}{\mu^2\log_{10}(t_2/t_1)}$	6 to 60 mins. 50℃ B<=0.25mT 10kHz	10^{-6}	3.0
Resistivity (typical)	ρ	1 V/cm 25℃	Ohm-cm	100

A Manganese-Zinc ferrite for low power applications with stable inductance versus temperature Characteristics. Ideal for filter networks, resonant coils and proximity detection.

T2 MATERIAL