

MATERIAL CHARACTERISTICS

Low Loss & High Bs Material

Material		Symbol	Unit	P1	P2	P3	P4	P5
Initial permeability	25°C	μi		2000 ± 25%	2500 ± 25%	2300 ± 25%	2200 ± 25%	1400 ± 25%
Amplitude permeability at 25kHz sine wave, 200mT	25°C	μa		2800min	3200min	3000min	2800min	2400min
Curie temperature		Tc	°C	>220	>230	>215	>230	>235
Relative Core loss 25KHz200mT	25°C	PV	kw/m ³	<165	<130	<120		
	60°C			<115	<90	<80		
	100°C			<155	<100	<70		
Relative Core loss 100KHz200mT	25°C	PV	kw/m ³			<650	<600	130
	60°C					<480	<400	90
	100°C					<420	<310	80
Relative Core loss 300KHz100mT	25°C	PV	kw/m ³				670	230
	60°C						540	240
	100°C						480	260
Relative Core loss 500KHz50mT	25°C	PV	kw/m ³				310	180
	60°C						280	160
	100°C						250	120
Saturation flux density at 1000A/m f=10kHz	25°C	Bms	MT	470	510	500	490	470
	60°C			430	450	440	450	420
	100°C			370	390	380	400	380
Remanence	25°C	Brms	MT	130	118	95	130	130
	60°C			90	80	65	65	65
	100°C			95	83	55	60	55
Coercivity field strength f=10kHz	25°C	Hc	A/m	13	12	13	18	30
	60°C			8	8	10	16	30
	100°C			8	8	9	11	47.2
Resistivity		ρ	Ω · m	10	10	7	7	7
Density		δ	g/cm ³	4.8	4.8	4.8	4.8	4.8
Note 1				EI,EE,PQ, EER,RM, EP,EFD, EPC,EF, ETD,UI, EL,POT,I	EI,EE,PQ, EER,RM, EP,EFD, EPC,EF, ETD,UI, EL,POT,I	EI,EE,PQ, EER,RM, EP,EFD, EPC,EF, ETD,FEY POT,T,EPX EEM	EI,EE,PQ, EER,RM, EP,EFD, EPC,EF, ETD,FEY POT,T,EPX EEM	EI,EE,PQ, EER,RM, EP,EFD, EPC,EF, ETD,FEY POT,T,EPX EEM

Note: the above values are obtained with T29 Toroidal core at room temperature unless otherwise shown.

MATERIAL CHARACTERISTICS

High μ i Material

Material	Temperature	Symbol	Unit	H3K	H5K	H6K	H7K
Initial permeability	25°C	μ i		3000±25%	5000±25%	6000±25%	7000±25%
Amplitude permeability at 25kHz sine wave,200mT	25°C	μ a		3700min	5600min	6600min	7800min
Curie temperature		Tc	°C	>210	>200	>150	>140
Relative Core loss 25KHz200mT	25°C	Pv	kw/m ³	<180	<180	<180	
	60°C			<130	<160		
	100°C			<160	<200	<200	
Relative Core loss 100KHz200mT	25°C	Pv	kw/m ³				
	60°C						
	100°C						
Saturation flux density at 1000A/m	25°C	Bms	mT	500	500	440	420
	60°C			450	450	390	390
	100°C			390	390	320	320
Remanence	25°C	Brms	mT	130	118	95	120
	60°C			90	80	65	
	100°C			95	81	55	
Coercivity	25°C	Hc	A/m	11	10	10	12
	60°C			8	8	8	
	100°C			8	8	8	
Resistivity		ρ	$\Omega \cdot m$	4	4	1	2
Density		δ	g/cm ³	4.8	4.8	4.8	4.8
Note 1				EI,EE,PQ, EER,RM, EP,T,UF ET, FT	EI,EE,PQ, EER,RM, EP,T,UF ET, FT	EI,EE,PQ, EER,RM, EP,T,UF ET, FT	EI,EE,PQ, EER,RM, EP,T,UF ET, FT

MATERIAL CHARACTERISTICS

High μ i Material

Material	Temperature	Symbol	Unit	H8K	H10K	H12K	H15K
Initial permeability	25°C	μ i		8000±25%	10000±25%	12000±30%	15000±30%
Amplitude permeability at 25kHz sine wave,200mT	25°C	μ a					
Curie temperature		Tc	°C	130	120	110	110
Relative Core loss 25KHz200mT	25°C	PV	kw/m ³				
	60°C						
	100°C						
Relative Core loss 100KHz200mT	25°C	PV	kw/m ³				
	60°C						
	100°C						
Saturation flux density at 1000A/m	25°C	Bms	mT	420	420	380	380
	60°C						
	100°C						
Remanence	25°C	Brms	mT	110	90	100	100
	60°C						
	100°C						
Coercivity	25°C	Hc	A/m	12	10		12
	60°C						
	100°C						
Resistvity		ρ	$\Omega \cdot m$	0.5	0.2	0.1	0.1
Density		δ	g/cm ³	4.9	4.9	4.9	4.9
Note 1				UF,EI,EE, PQ,EER, RM,EP, T,POT	UF,EI,EE, PQ,EER, RM,EP, T,POT	UF,EP,RM, T,POT	ET,FT,RM EP,T,POT

MATERIAL CHARACTERISTICS

High μ Q Material

Material	Temperature	Symbol	Unit	HQ8H	HQ2K	HQ2KA
Initial permeability	25°C	μ_i		800±25%	2000±25%	2000±25%
Amplitude permeability at 25kHz sine wave,200mT	25°C	μ_a				
Curie temperature		Tc	°C	220	130	120
Relative Temperature coefficient	10~55°C	α_F	10 ⁻⁶ /k	0~2.0	0~1.5	0~1.5(-20~70°C)
Relative loss factor		Tan δ/μ_i	10 ⁻⁶	5(500KHz) 16(1MHz)	3 (100KHz)	2 (100KHz)
Disaccommodation factor	1to10 minutes	DF	10 ⁻⁶	3	2	3.5
Saturation flux density at 1000A/m (f=10kHz)	25°C	Bms	mT	380	380	390
	60°C					
	100°C					
Remanence	25°C	Brms	mT	150	100	120
	60°C					
	100°C					
Coercivity	25°C	Hc	A/m	40	16	16
	60°C					
	100°C					
Resistivity		ρ	$\Omega \cdot m$	2	0.5	0.2
Density		δ	g/cm ³	4.8	4.9	4.9
Note 1				EP,T, POT,RM	EP,POT, RM,T	EP,T, POT,RM