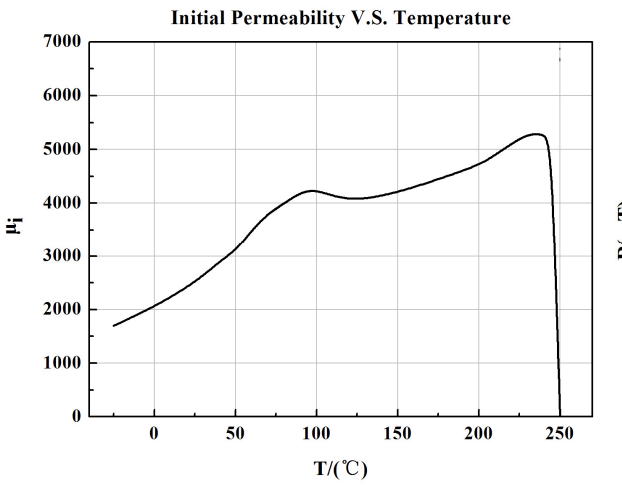
Power Material characteristics

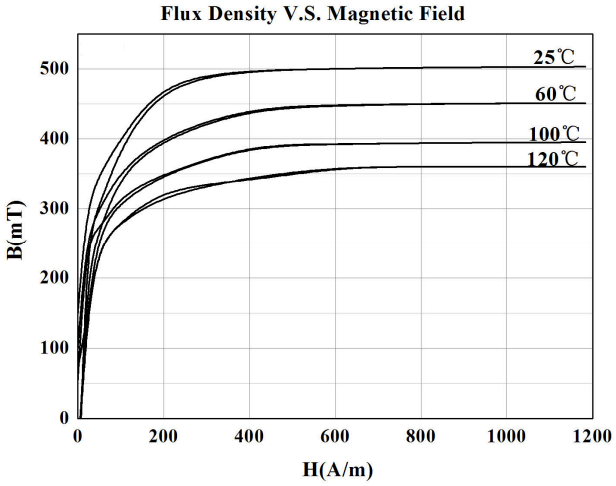
Material			Unit	P3	P44	P47	P5	P51	P53	P95	P96
Initial permeability(±25%)				2300	2400	2400	1400	1200	900	3300	3000
Saturation flux density (Bs)	25℃		mT	510	510	530	470	500	500	530	540
	100℃			390	410	420	380	420	400	410	450
Residual magnetic flux density (Br)	25℃		mT	95	110	180	140	140	140	85	90
	100℃			55	60	60	100	100	100	60	60
Coercive force(Hc)	25℃		A/m	14	13	13	36.5	36.5	36.5	10	10
Power loss (Pcv)	100KHz 200mT	25℃	kW/m^3	600	600	550				350	360
		60℃	kW/m^3	450	400	350					
		80℃	kW/m^3							270	
		100℃	kW/m^3	410	300	250				290	300
		120℃	kW/m^3	510	400	360				350	360
	500KHz 50mT	100℃	kW/m^3				80				
	1MHz 30mT	100℃	kW/m^3					150			
	1MHz 50mT	100℃	kW/m^3								
	3MHz 10mT	100℃	kW/m^3						260		
	3MHz 30mT	100℃	kW/m^3								
Resistivity (ρ)			Ω•m	6.5	7	4	10	10	10	6	6
Curie temperature (Tc)			℃	215	215	250	240	220	240	215	250
Density (d)			kg/m^3	$4.8x10^3$	$4.8x10^3$	$4.9x10^3$	$4.7x10^3$	$4.7x10^3$	$4.7x10^3$	$4.9x10^3$	$4.9x10^3$

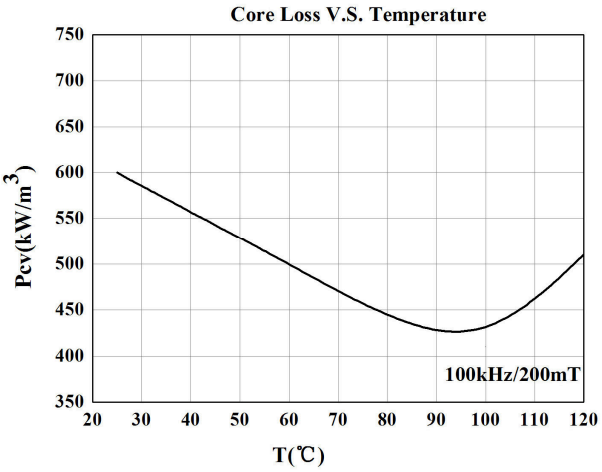
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

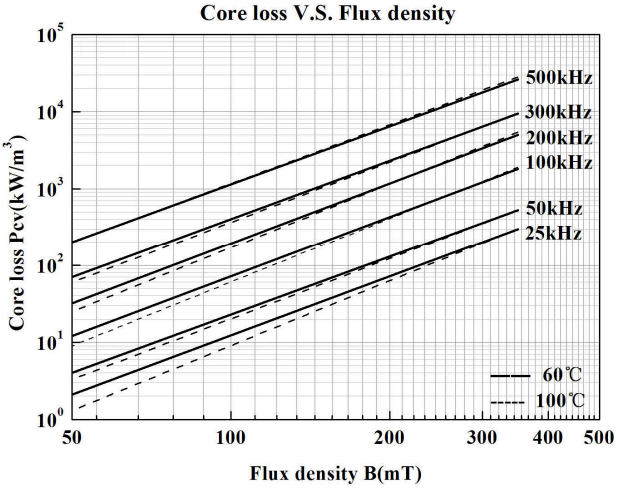
P3 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		2300
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	510
			100℃	390
Br Residual magnetic flux density	mT	25℃		95
		100℃		55
Hc Coercive force	A/m	25℃		14
Pcv Power loss	kW/m^3	100 kHz 200 mT	25℃	600
			60℃	450
			100℃	410
			120℃	510
Tc Curie temperature	℃			215
Resistivity	Ω·m	25℃		6.5
d Density	kg/m^3	25℃		4.8×10^3





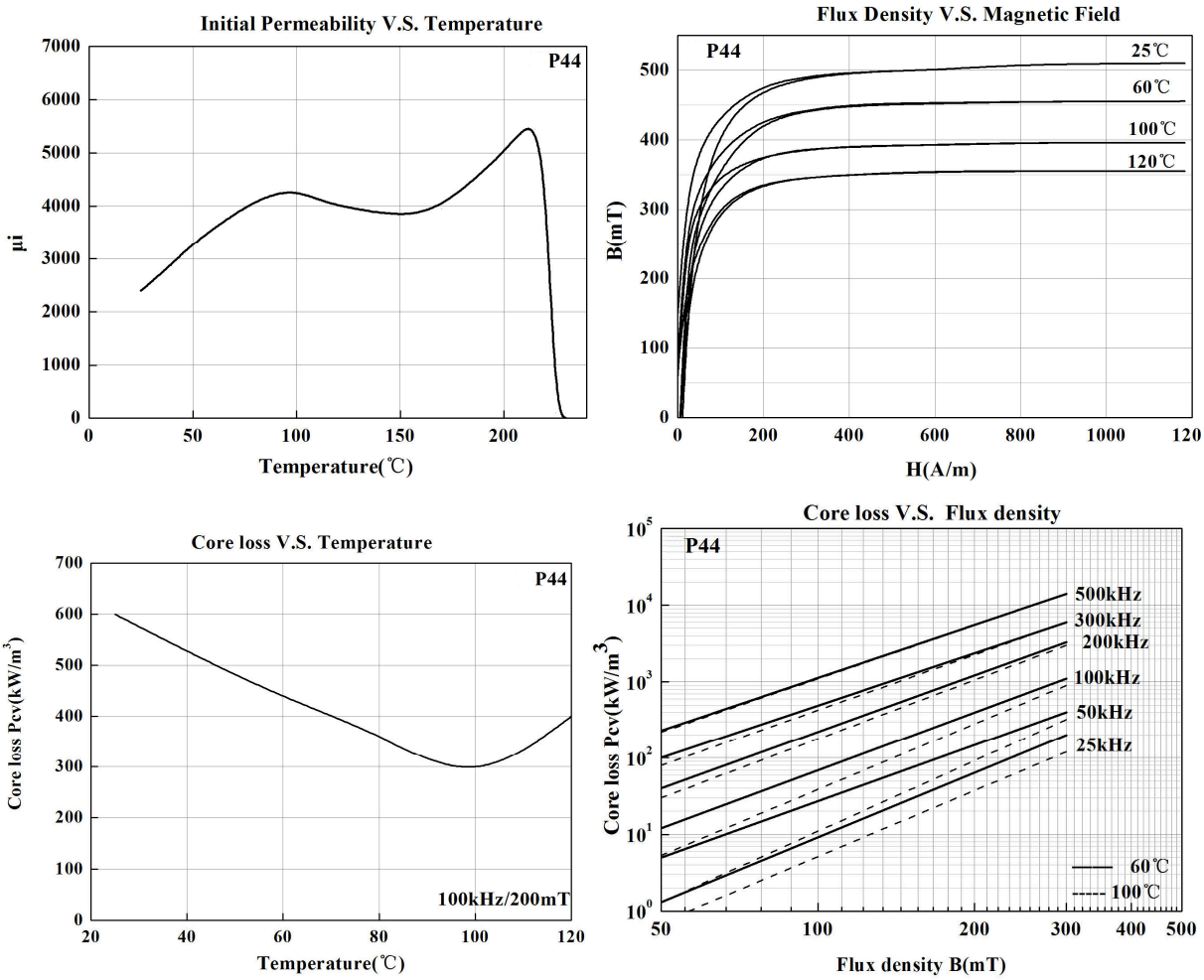




The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

P44 Material characteristics

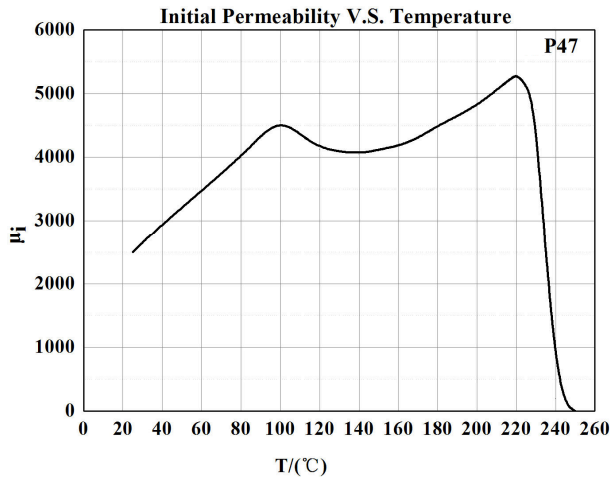
Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		10 kHz B≤0.25mT	25℃	2400
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	510
			100℃	410
Br Residual magnetic flux density	mT		25℃	110
			100℃	60
Hc Coercive force	A/m		25℃	13
Pcv Power loss	kW/m^3	100 kHz 200 mT	25℃	600
			60℃	400
			100℃	300
			120℃	400
Tc Curie temperature	℃			215
Resistivity	Ω·m	25℃		7
d Density	kg/m^3	25℃		4.8×10^3

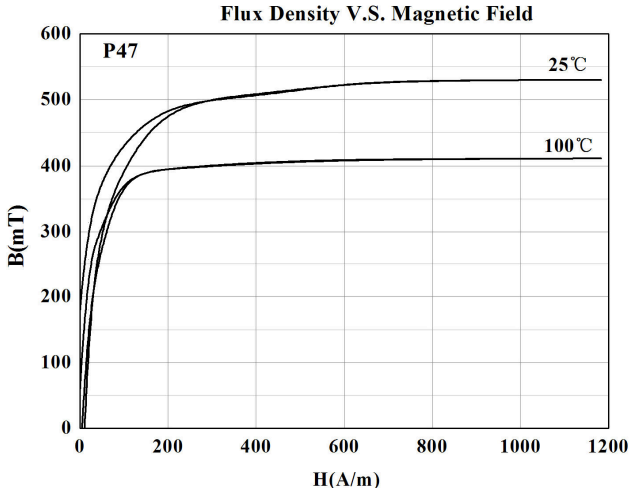


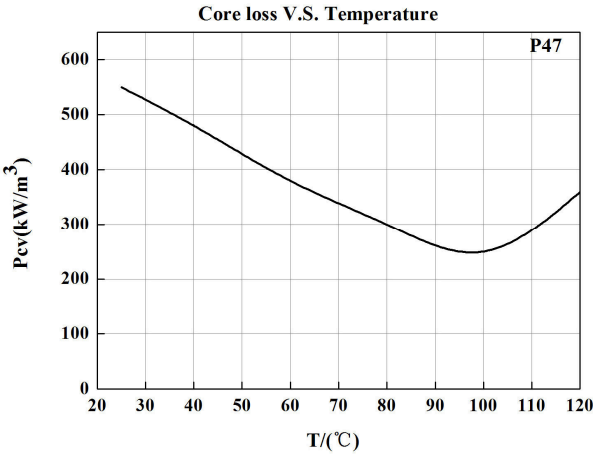
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

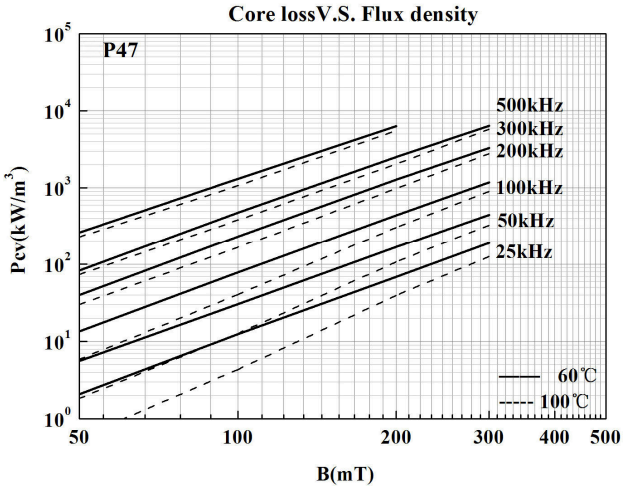
P47 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		2400
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	530
			100℃	420
Br Residual magnetic flux density	mT	25℃		180
		100℃		60
Hc Coercive force	A/m	25℃		13
Pcv Power loss	kW/m^3	100kHz 200mT	25℃	550
			60℃	350
			100℃	250
			120℃	360
Tc Curie temperature	℃			250
Resistivity	Ω·m	25℃		4
d Density	kg/m^3	25℃		4.9×10^3





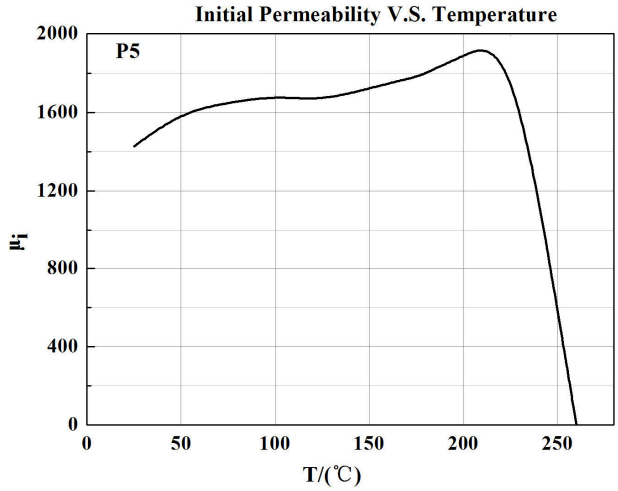


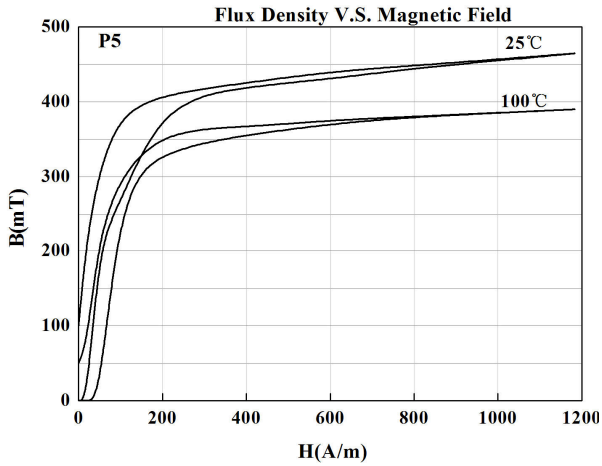


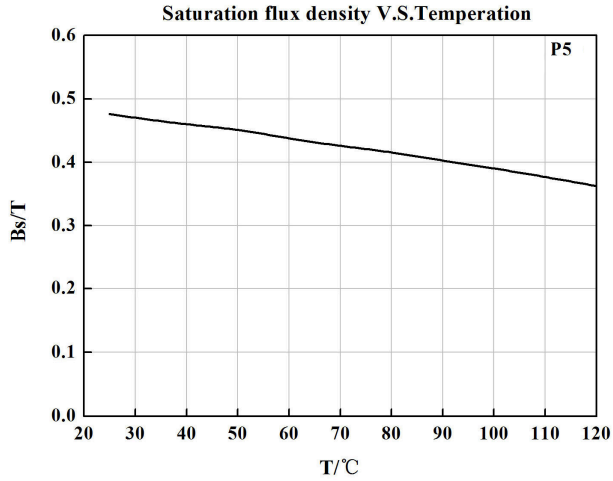
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

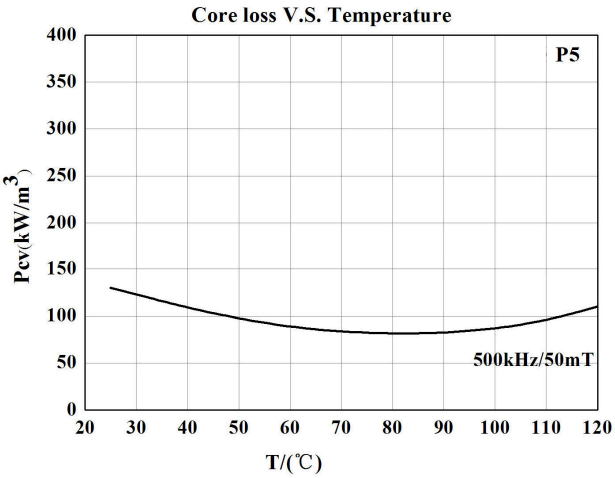
P5 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		1400
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	470
			100℃	380
Br Residual magnetic flux density	mT	25℃		140
		100℃		100
Hc Coercive force	A/m	25℃		36.5
Pcv Power loss	kW/m^3	500 kHz 50 mT	25℃	130
			100℃	80
Tc Curie temperature	℃			240
Resistivity	Ω·m	25℃		10
d Density	kg/m^3	25℃		4.7×10^3





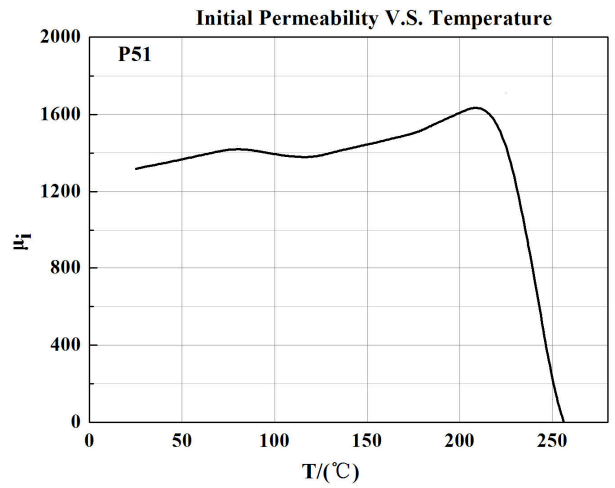


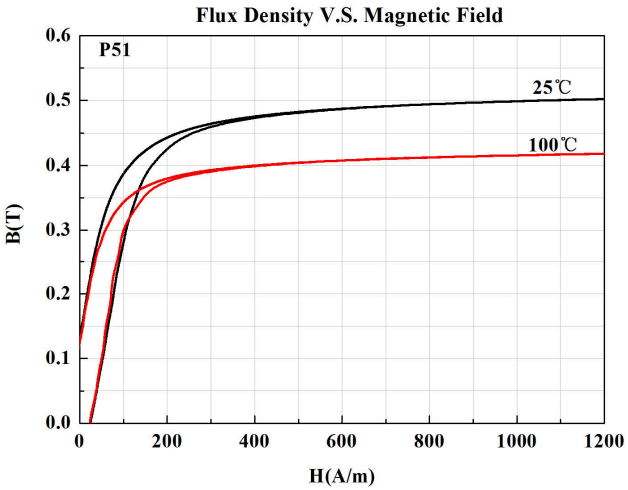


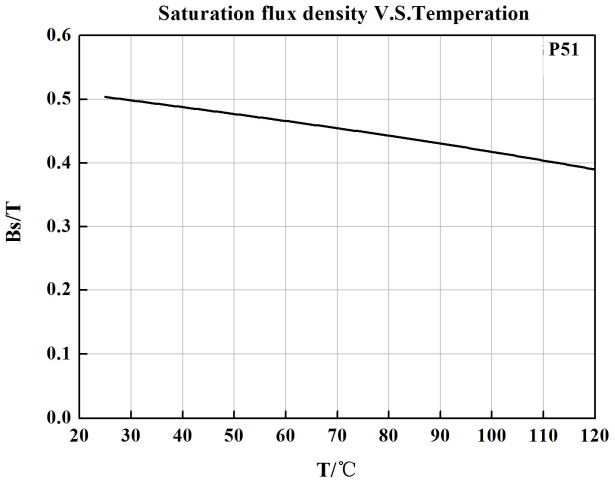
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

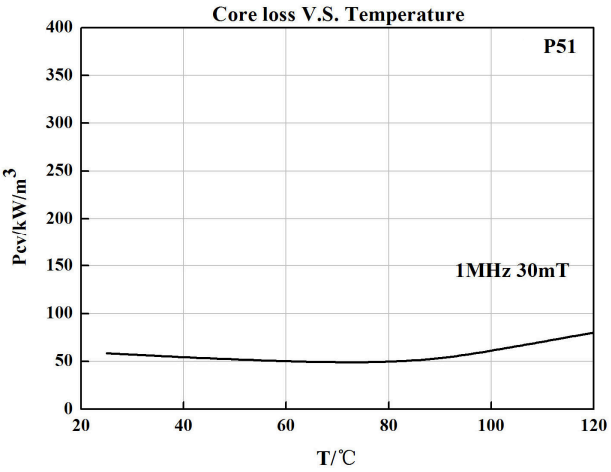
P51 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		1200
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	500
			100℃	420
Br Residual magnetic flux density	mT	25℃		140
		100℃		100
Hc Coercive force	A/m	25℃		36.5
Pcv Power loss	kW/m^3	1MHz 30mT	100℃	150
Tc Curie temperature	℃			220
Resistivity	Ω·m	25℃		10
d Density	kg/m^3	25℃		4.7×10^3





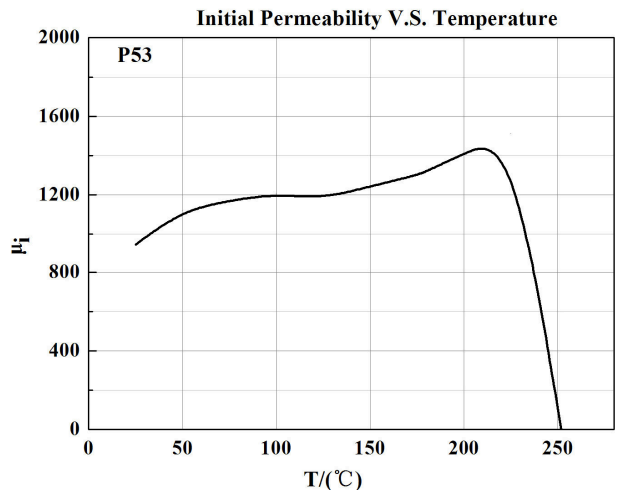


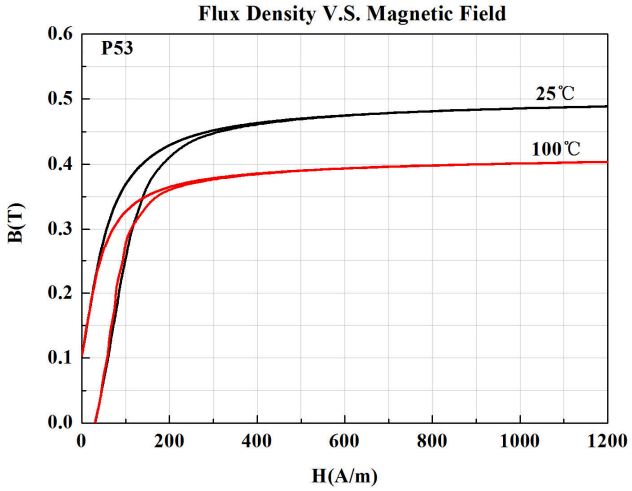


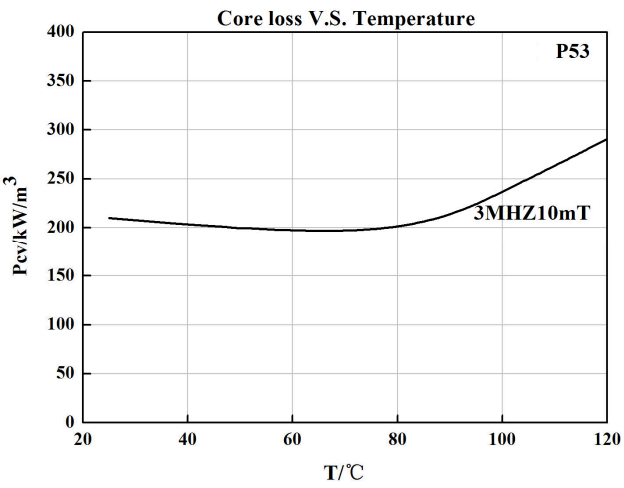
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

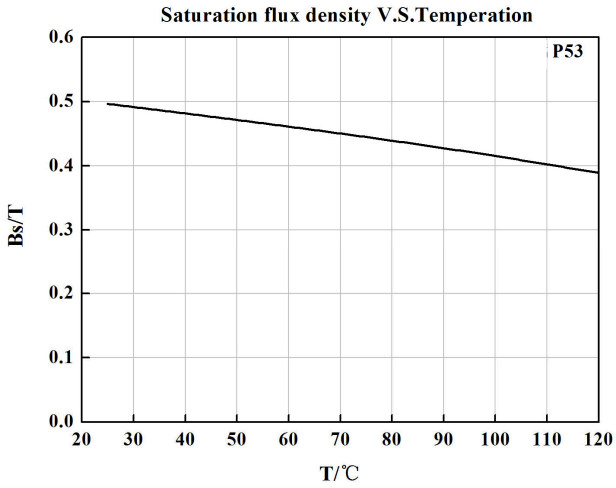
P53 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		900
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	500
			100℃	400
Br Residual magnetic flux density	mT	25℃		140
		100℃		100
Hc Coercive force	A/m	25℃		36.5
Pcv Power loss	kW/m^3	3MHz 10mT	100℃	260
Tc Curie temperature	℃			240
Resistivity	Ω·m	25℃		10
d Density	kg/m^3	25℃		4.7×10^3





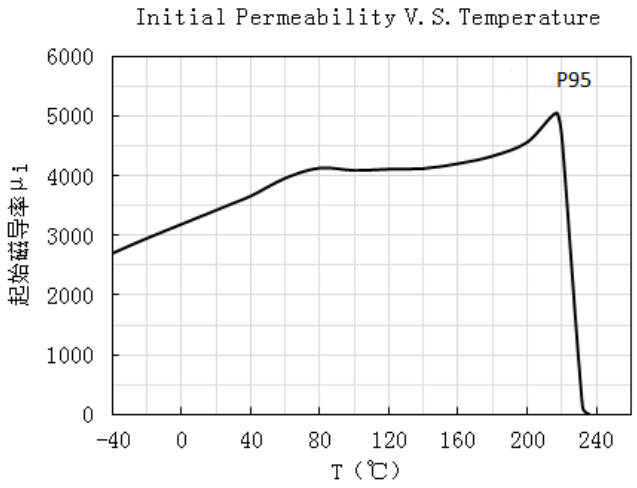


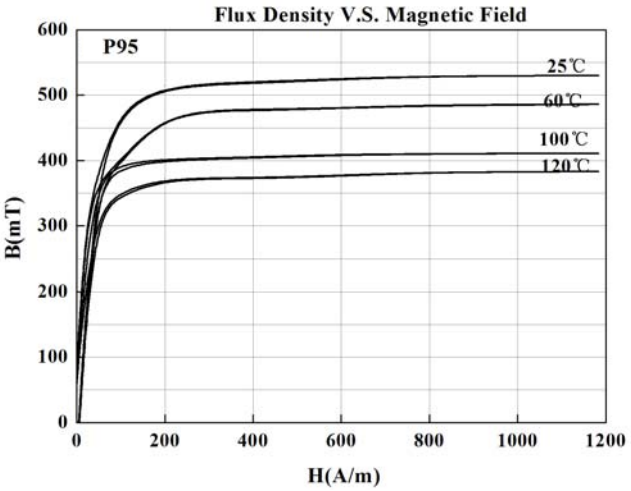


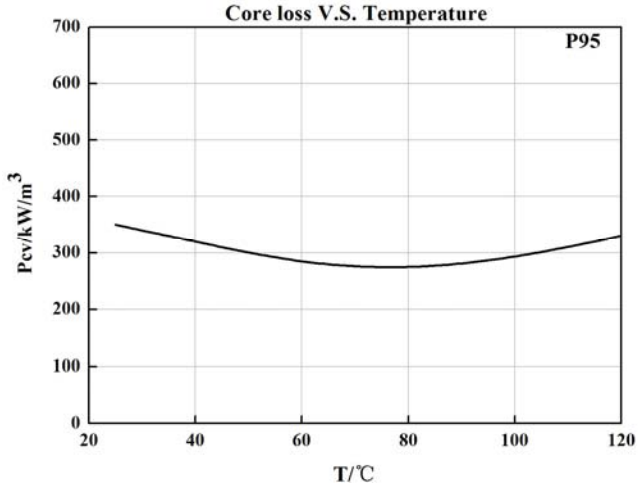
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

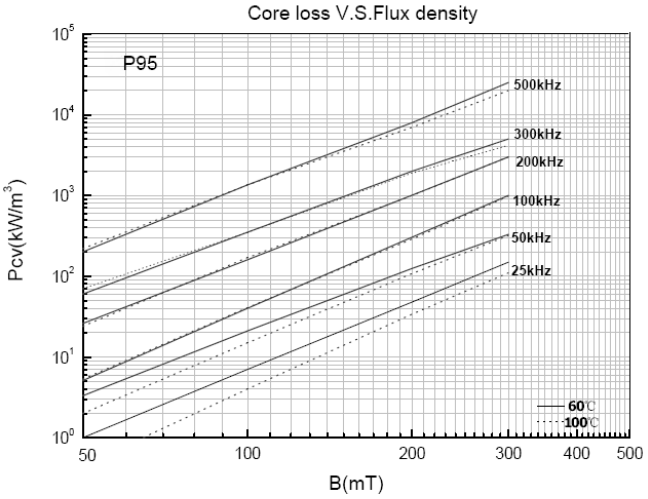
P95 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		3300
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	530
			100℃	410
Br Residual magnetic flux density	mT	25℃		85
		100℃		60
Hc Coercive force	A/m	25℃		10
Pcv Power loss	kW/m^3	100 kHz 200 mT	25℃	350
			80℃	270
			100℃	290
			120℃	350
Tc Curie temperature	℃			215
Resistivity	Ω·m	25℃		6
d Density	kg/m^3	25℃		4.9×10^3





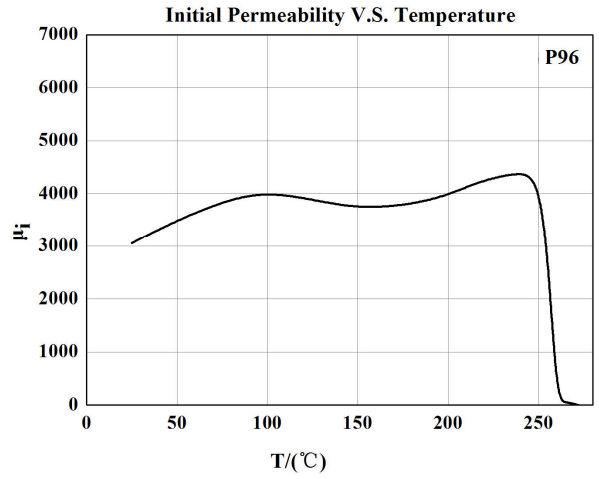


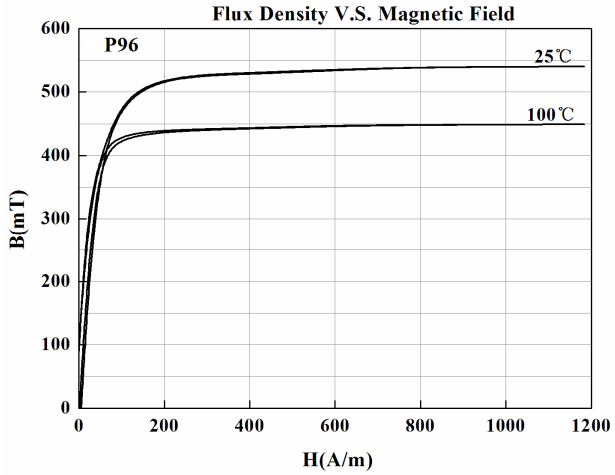


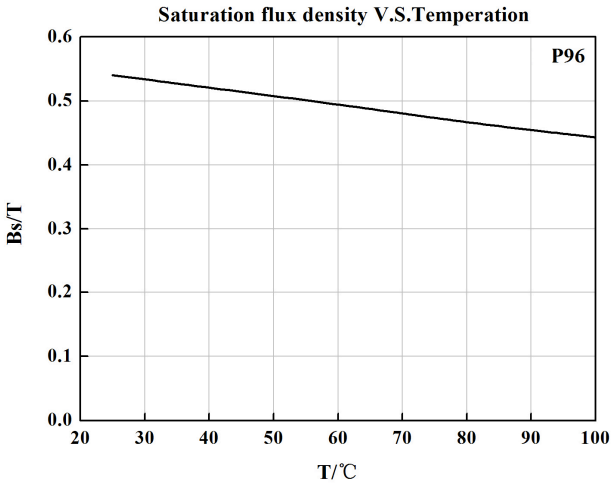
The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis.

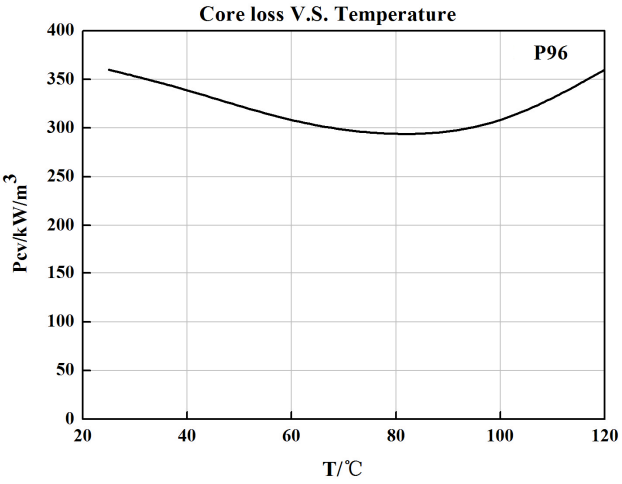
P96 Material characteristics

Symbol	Unit	Conditions		Value
μ_i Initial permeability (±25%)		25℃		3000
Bs Saturation flux density	mT	60 Hz 1194 A/m	25℃	540
			100℃	450
Br Residual magnetic flux density	mT	25℃		90
		100℃		60
Hc Coercive force	A/m	25℃		10
Pcv Power loss	kW/m^3	100 kHz 200 mT	25℃	360
			100℃	300
			120℃	360
Tc Curie temperature	℃			250
Resistivity	Ω·m	25℃		6
d Density	kg/m^3	25℃		4.9×10^3









The above typical data are calculated from the standard toroid core. Specific performance of the product will be adjusted on this basis