

材料特性 MATERIAL CHARACTERISTICS

●功率铁氧体材料 Power ferrite materials

特性 Characteristics	符号 Symbol	单位 Unit		LP1	LP3	LP3A	LP13	LP9
初始磁导率 Initial permeability	μi	-		3000±25%	2300±25%	2200±25%	2500±25%	3300±25%
相对损耗因数 Relative loss factor	tanδ/μi	×10 <sup>-6</sup>		<10	<4	<3	<4	<4
饱和磁通密度 Saturation flux density	Bs 1000A/m	mT	25℃	490	500	490	510	520
			100℃	380	390	390	410	410
剩磁 Remanence	Br	mT			130	110	90	90
矫顽力 Coercivity	Hc	A/m			13	10	9	9
功率损耗 Power loss (f=25kHz,B=200mT)	Pc	kW/m <sup>3</sup>	25℃					
			60℃					
			80℃		90	70		
			100℃	160	70	50		
功率损耗 Power loss (f=100kHz,B=200mT)	Pc	kW/m <sup>3</sup>	25℃		650	600	550	400
			60℃				450	380
			80℃		480	400	380	350
			100℃		450	375	350	350
			120℃				400	400
居里温度 Curie temperature	Tc	℃		≥220	≥200	≥200	≥210	≥210
密度 Density	d	kg/m <sup>3</sup> ×10 <sup>3</sup>		4.8	4.8	4.8	4.8	4.8

1A/m=4π×10<sup>-3</sup>Oe, 1mT=10Gauss

注： 如无说明，各项数值均在室温下用Φ25×Φ15×10环型磁芯测得。

Note:The values were obtained with toroidal core Φ25×Φ15×10 at room temperature unless otherwise specified.

材料特性 MATERIAL CHARACTERISTICS

●高磁导率铁氧体材料 Power ferrite materials

特性 Characteristics	符号 Symbol	单位 Unit		HP1	HP2	HP3	HP3A
初始磁导率 Initial permeability	μi	-		5000±25%	7000±25%	10000±30%	12000±30%
相对损耗因数 Relative loss factor	tanδ/μi	×10 <sup>-6</sup>		<15	<7	<7	<10
				(100kHz)	(10kHz)	(10kHz)	(10kHz)
饱和磁通密度 Saturation flux density	Bs 1000A/m	mT	25℃	420	400	400	380
剩磁 Remanence	Br	mT		110	100	90	110
矫顽力 Coercivity	Hc	A/m		10	6	5	4.5
减落因数 Disaccommodation factor	DF	×10 <sup>-6</sup>		<3	<3	<2	<2
居里温度 Curie temperature	Tc	℃		≥140	≥120	≥120	≥110
密度 Density	d	kg/m <sup>3</sup> ×10 <sup>3</sup>		4.85	4.9	4.95	5.00

1A/m=4π×10<sup>-3</sup>Oe, 1mT=10Gauss

注： 如无说明，各项数值均在室温下用Φ25×Φ15×10环型磁芯测得。

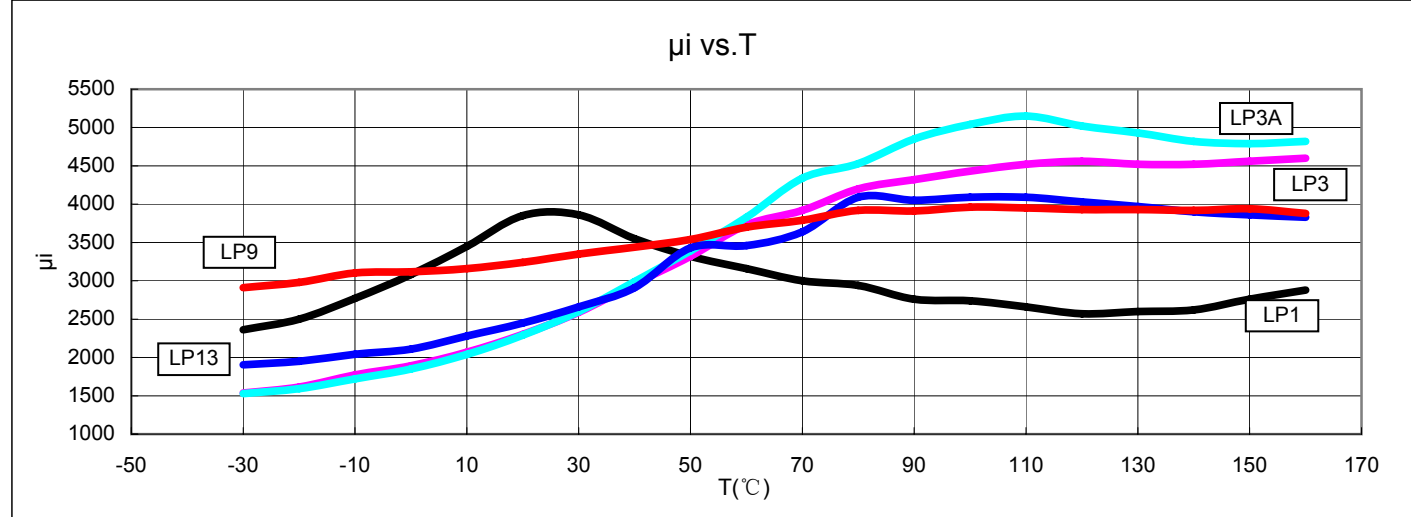
Note:The values were obtained with toroidal core Φ25×Φ15×10 at room temperature unless otherwise specified.

●功率铁氧体材料LP系列

Power ferrite materials LP series

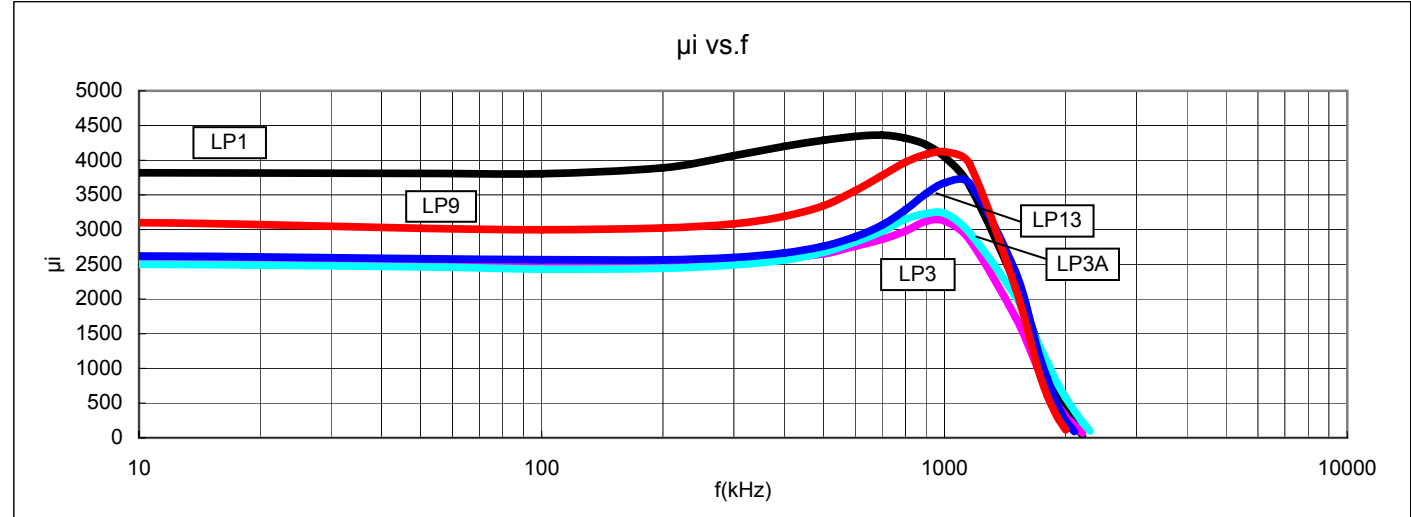
●导磁率 vs.温度

$\mu$  vs. Temperature



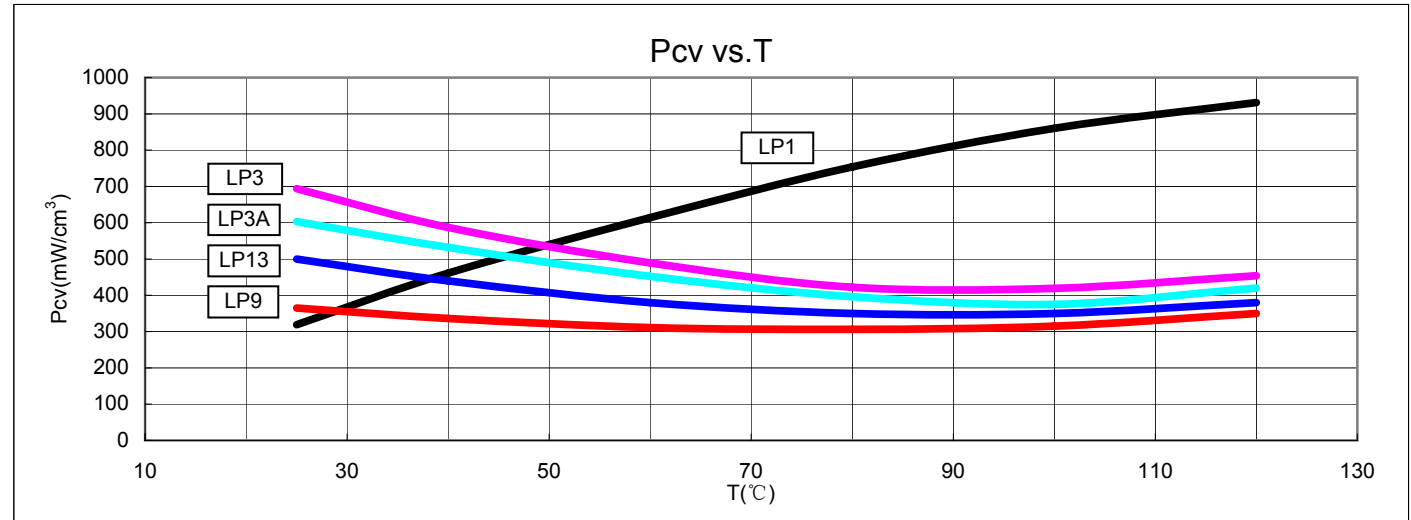
●导磁率 vs.频率

$\mu$  vs. Frequency



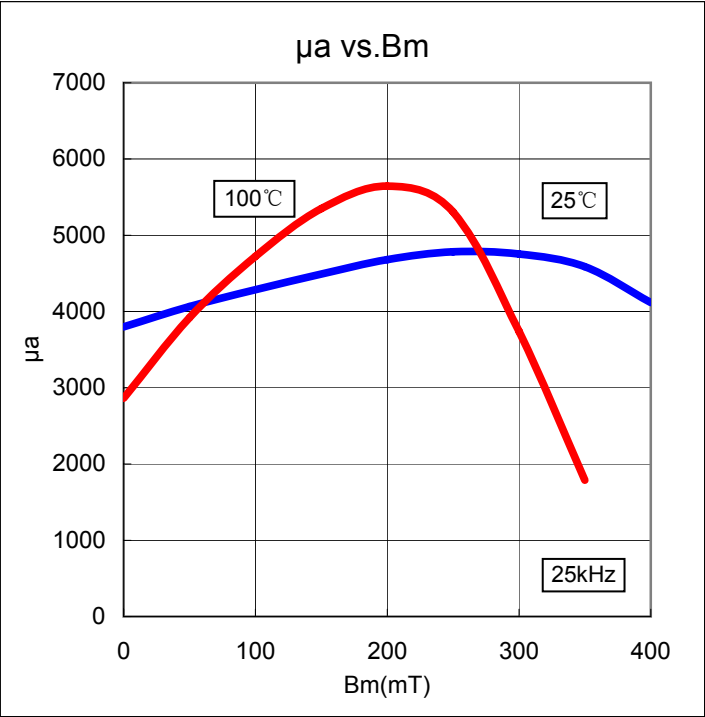
●功率损耗 Vs.温度(100kHz/200mT)

Power Loss vs. Temperature(100kHz/200mT)

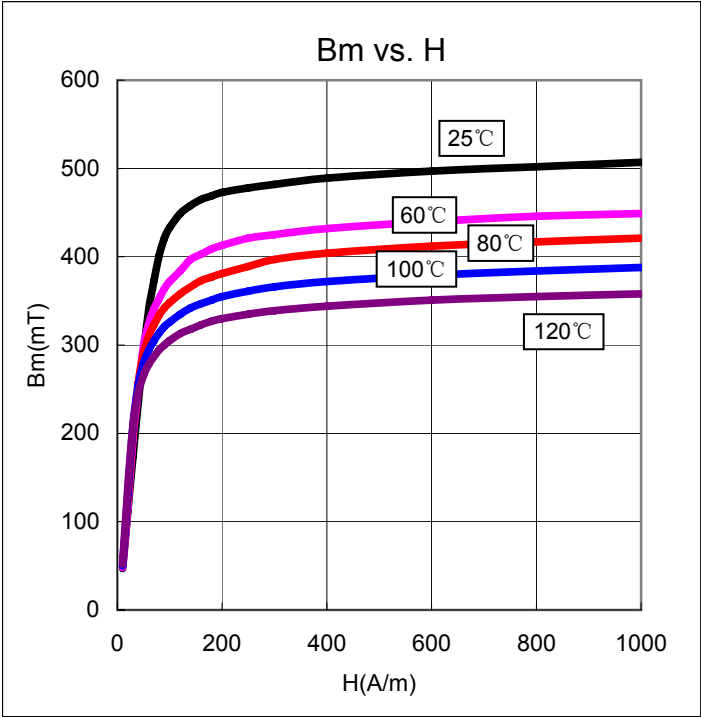


● 功率铁氧体材料LP1 Power ferrite materials LP1

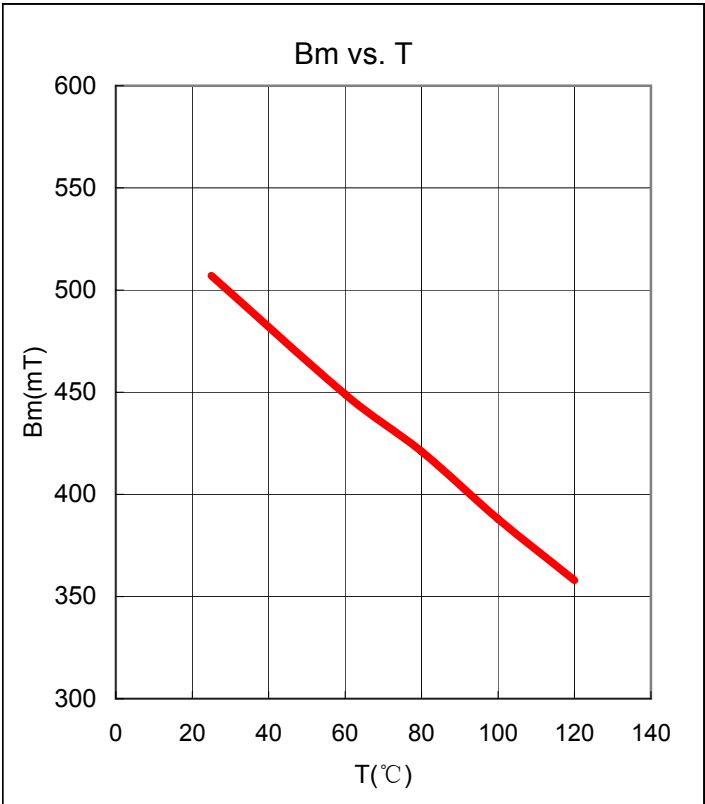
● 振幅导磁率 vs.磁感应强度     $\mu_a$  vs.  $B_m$



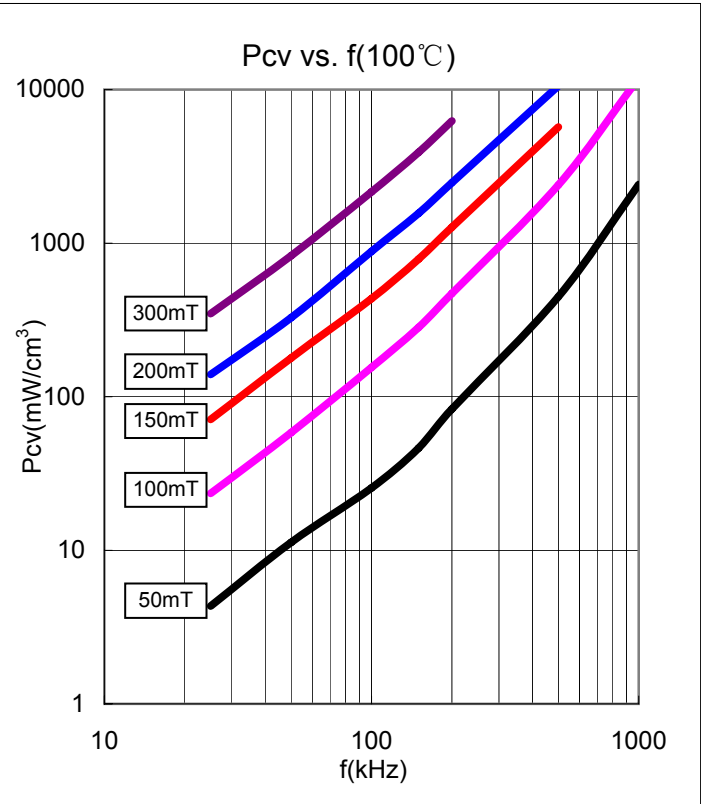
● 磁感应强度 vs.磁场强度     $B_m$  vs.  $H$



● 磁感应强度 vs. 温度     $B_m$  vs.  $T$



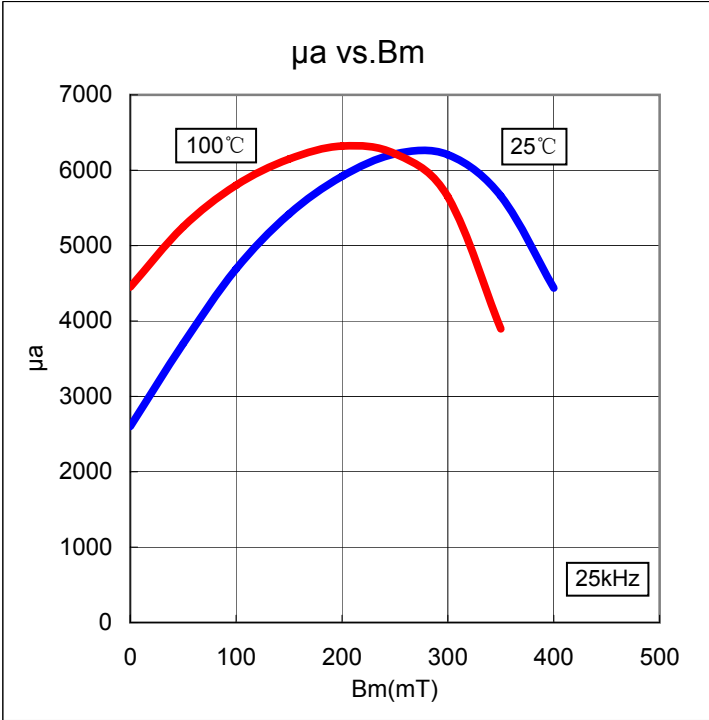
● 功率损耗 vs.频率    Core Loss vs. Frequency



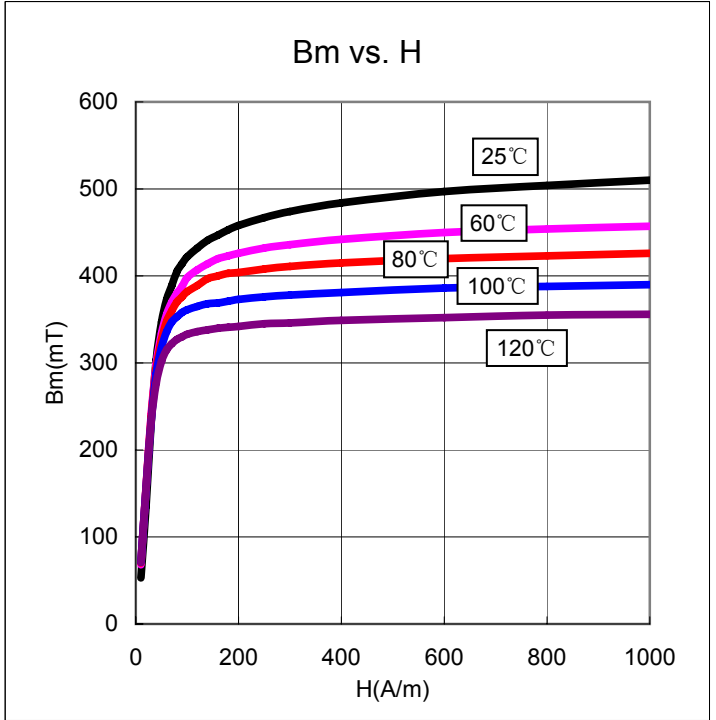
# 材料特性 MATERIAL CHARACTERISTICS

## ● 功率铁氧体材料LP3 Power ferrite materials LP3

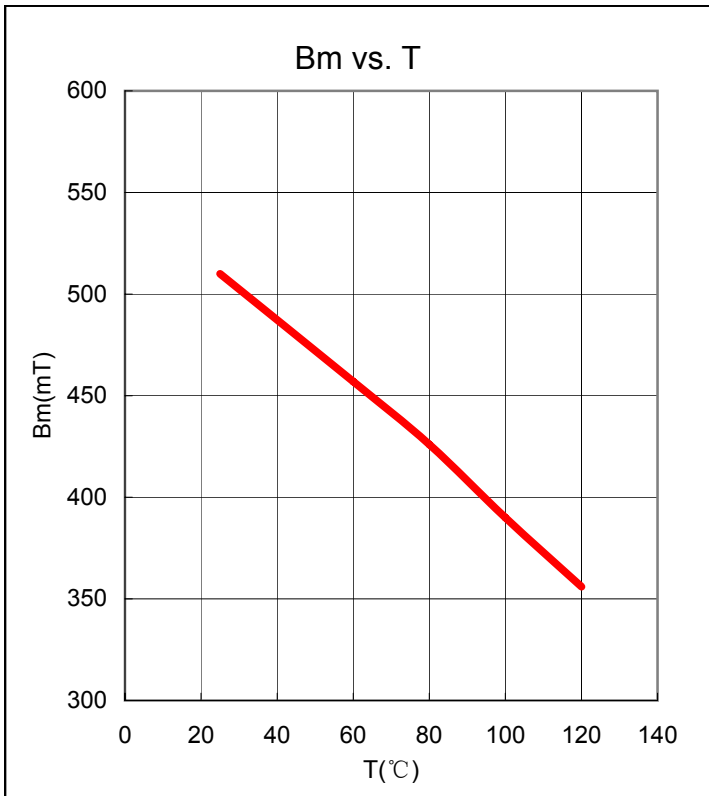
### ● 振幅导磁率 vs. 磁感应强度 $\mu_a$ vs. $B_m$



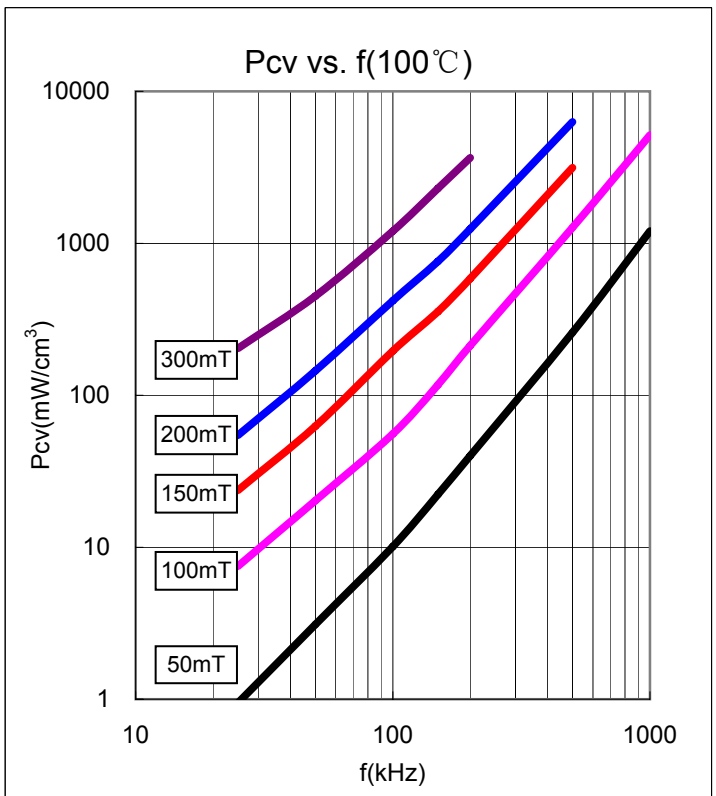
### ● 磁感应强度 vs. 磁场强度 $B_m$ vs. $H$



### ● 磁感应强度 vs. 温度 $B_m$ vs. $T$



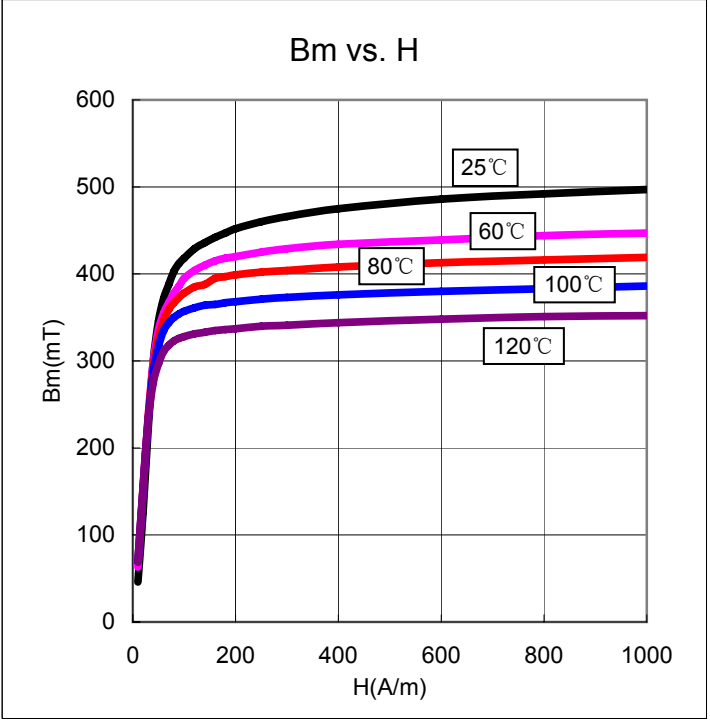
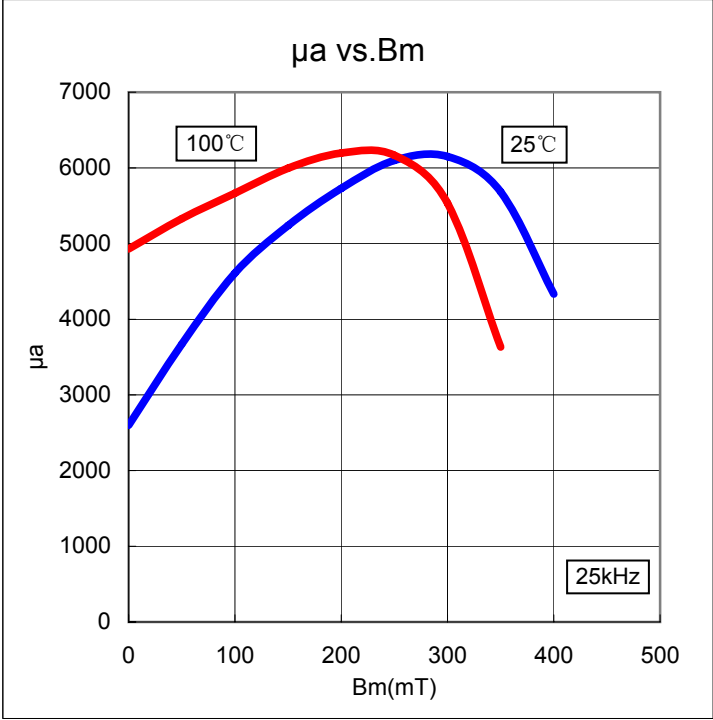
### ● 功率损耗 vs. 频率 Core Loss vs. Frequency



●功率铁氧体材料LP3A Power ferrite materials LP3A

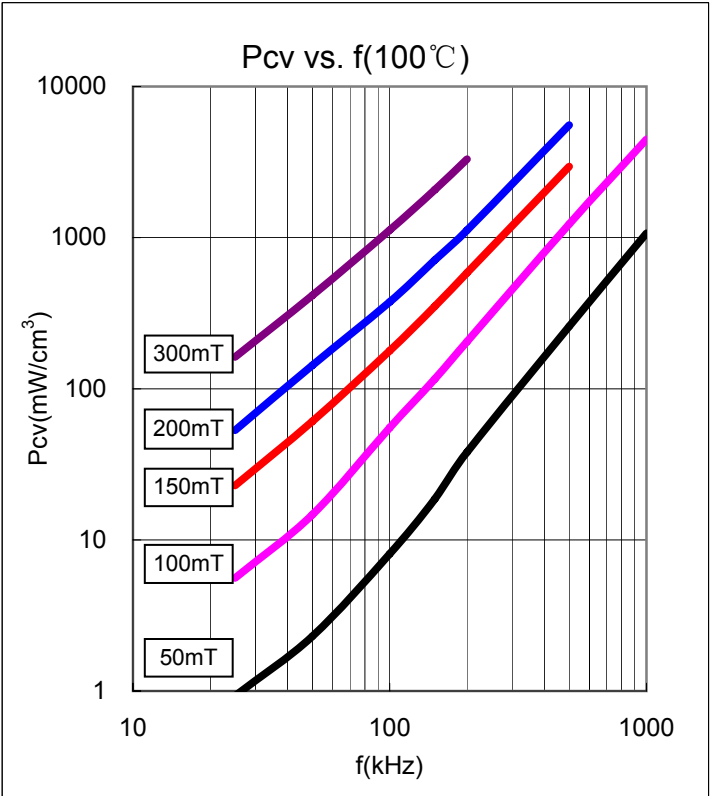
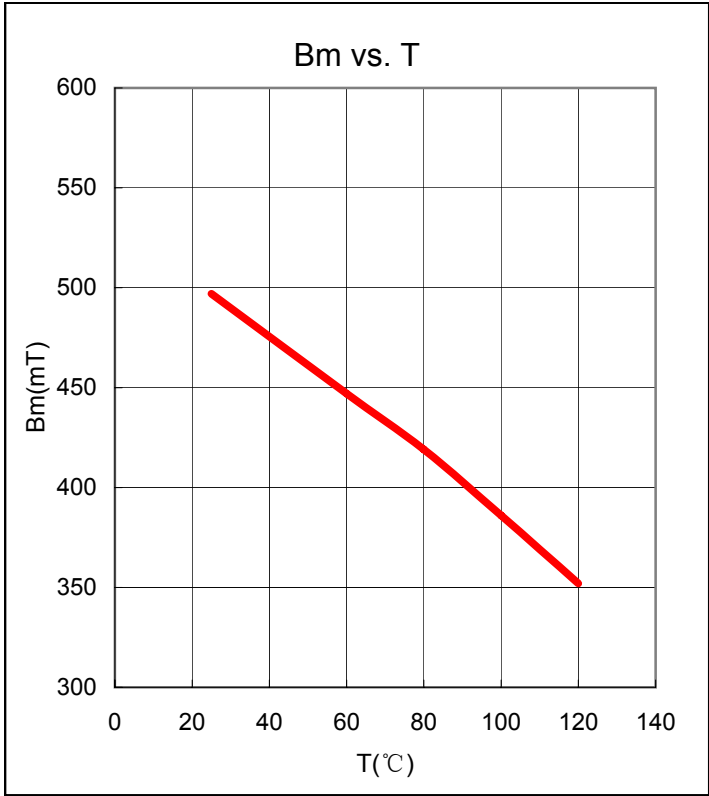
●振幅导磁率 vs.磁感应强度  $\mu_a$  vs.  $B_m$

●磁感应强度 vs.磁场强度  $B_m$  vs.  $H$



●磁感应强度 vs. 温度  $B_m$  vs.  $T$

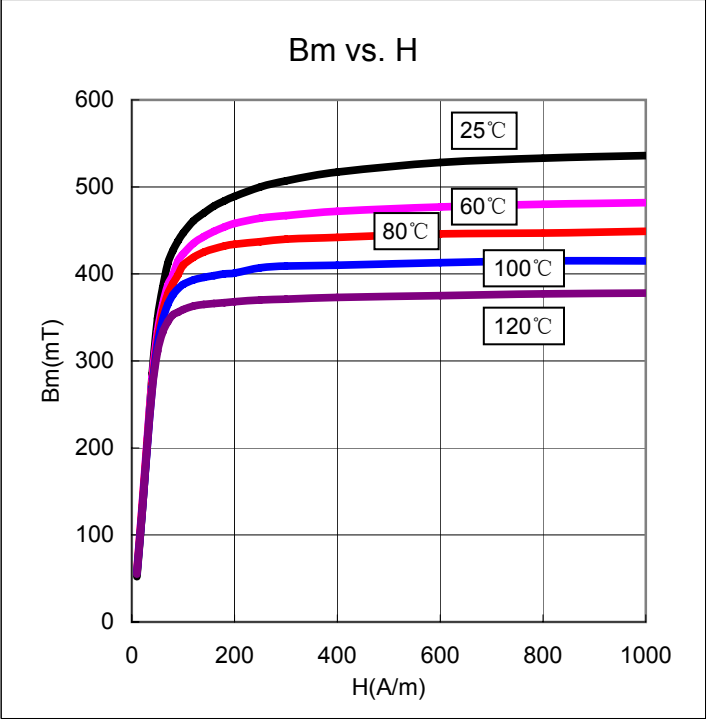
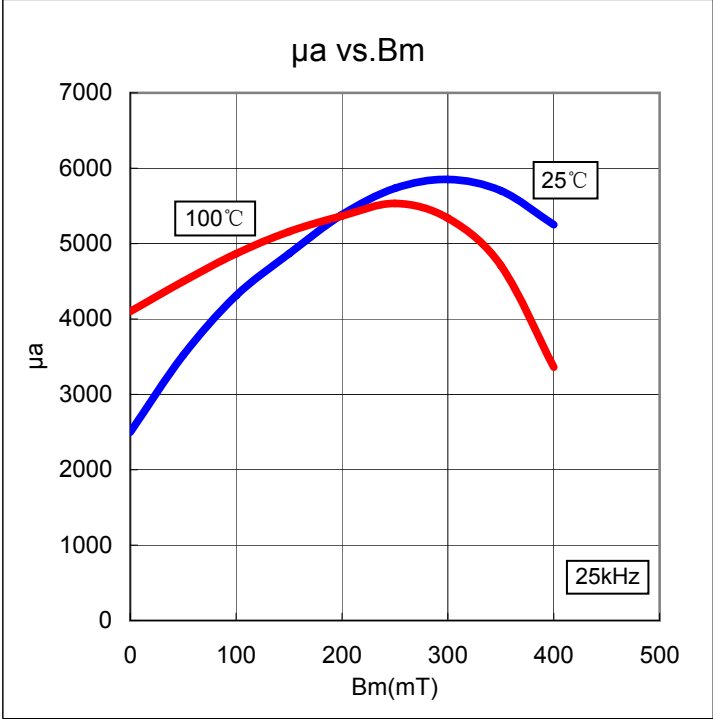
●功率损耗 vs.频率 Core Loss vs. Frequency



●功率铁氧体材料LP13 Power ferrite materials LP13

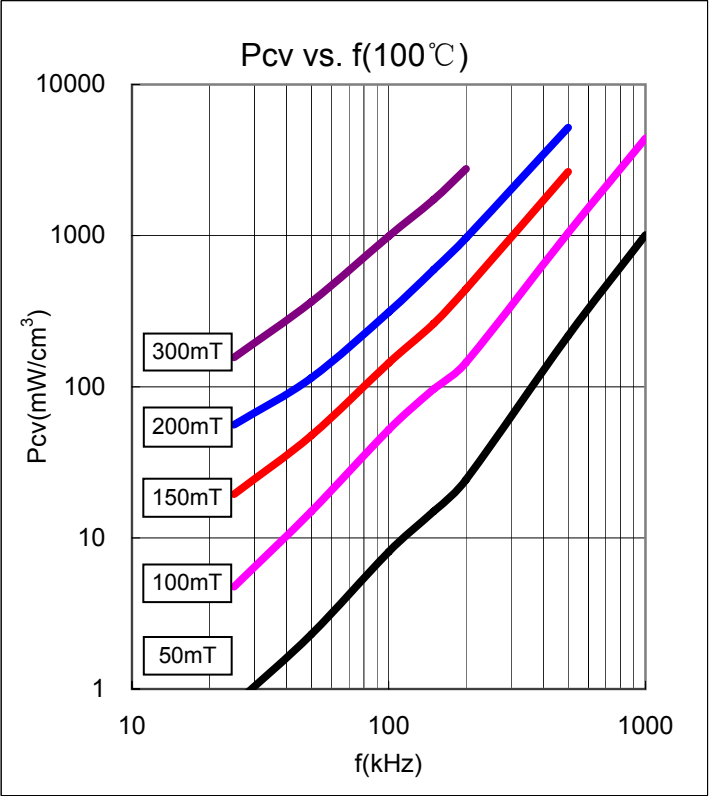
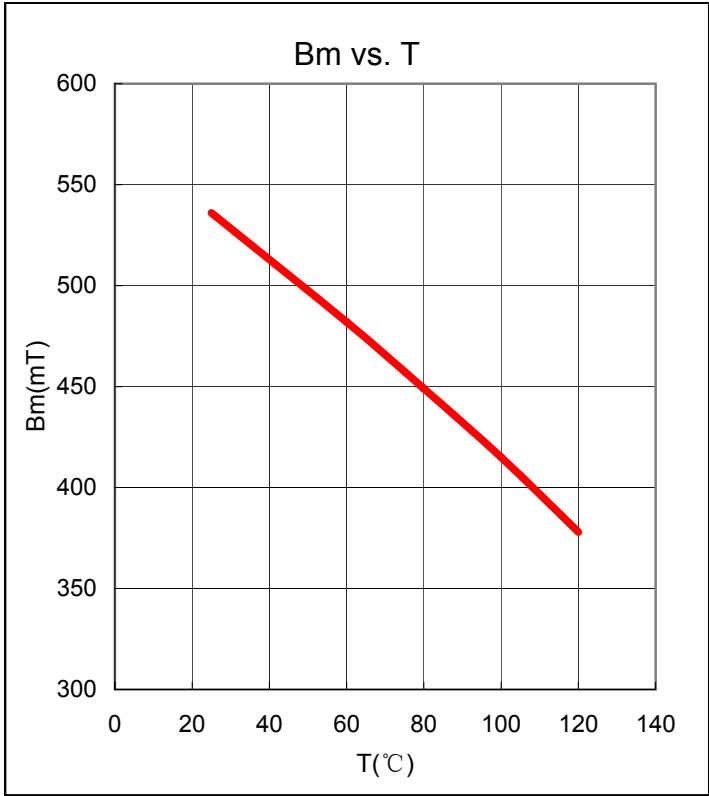
●振幅导磁率 vs.磁感应强度  $\mu_a$  vs.  $B_m$

●磁感应强度 vs.磁场强度  $B_m$  vs.  $H$



●磁感应强度 vs. 温度  $B_m$  vs.  $T$

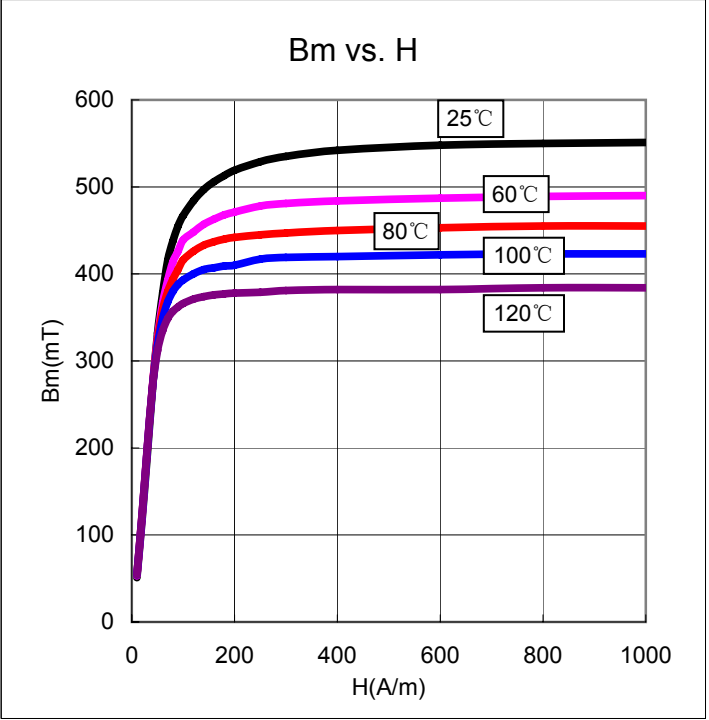
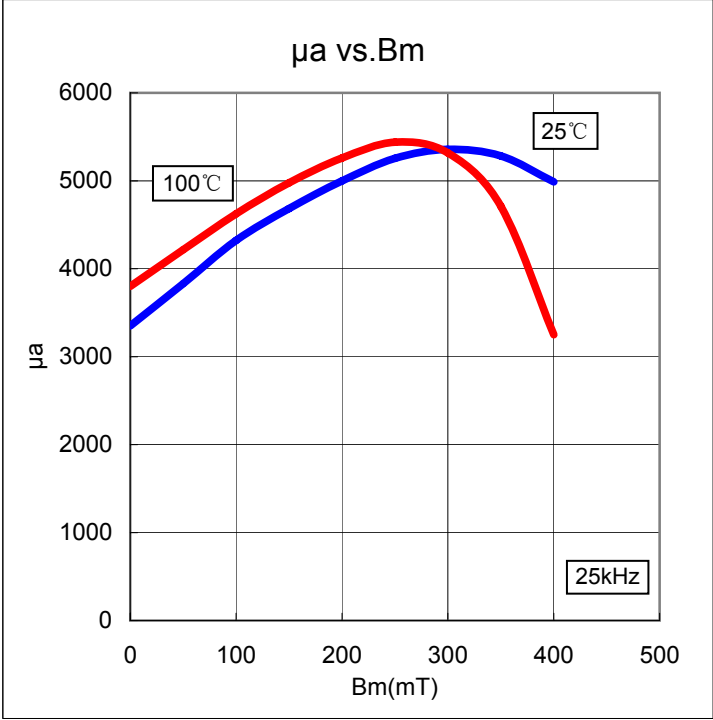
●功率损耗 vs.频率 Core Loss vs. Frequency



●功率铁氧体材料LP9 Power ferrite materials LP9

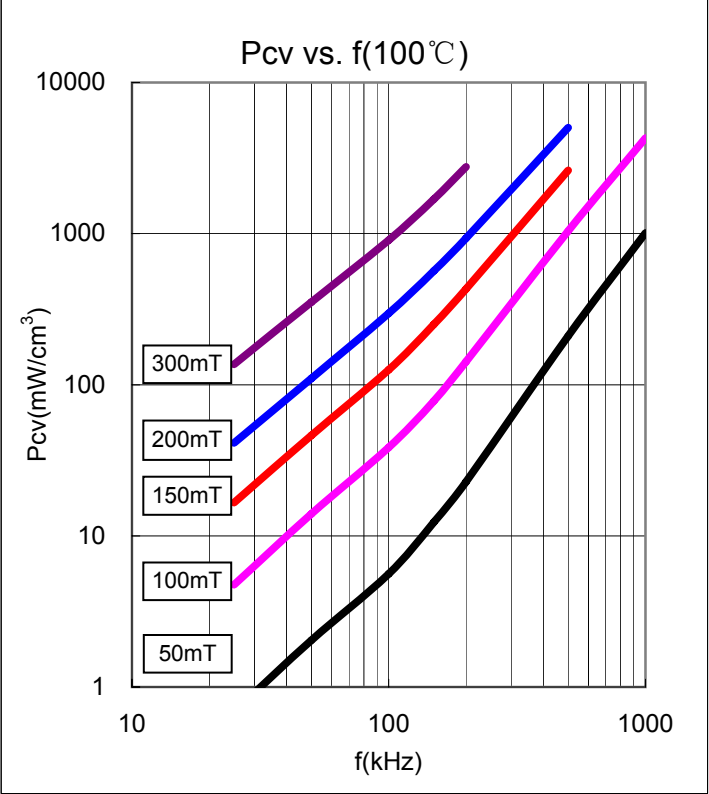
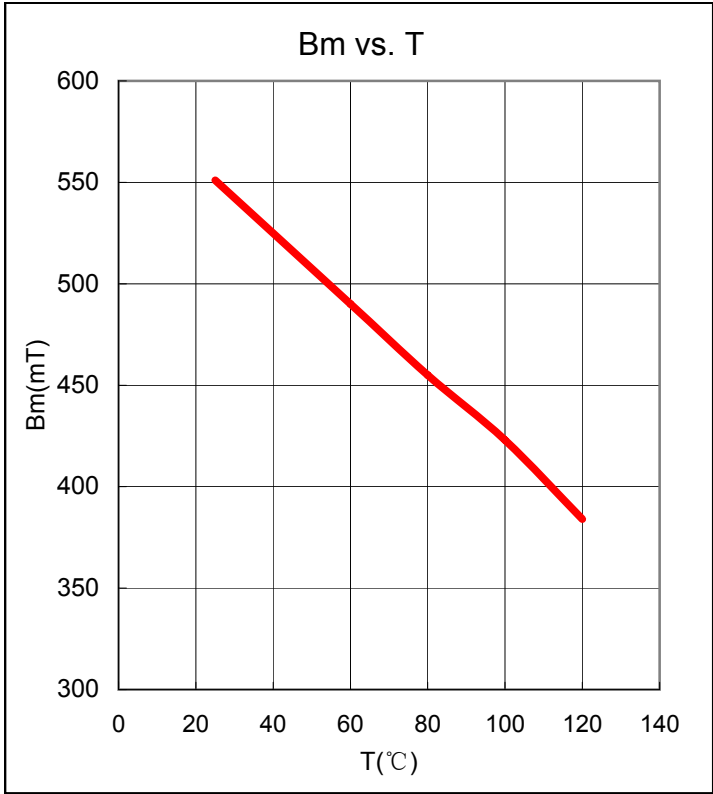
●振幅导磁率 vs.磁感应强度  $\mu_a$  vs.  $B_m$

●磁感应强度 vs.磁场强度  $B_m$  vs.  $H$



●磁感应强度 vs. 温度  $B_m$  vs.  $T$

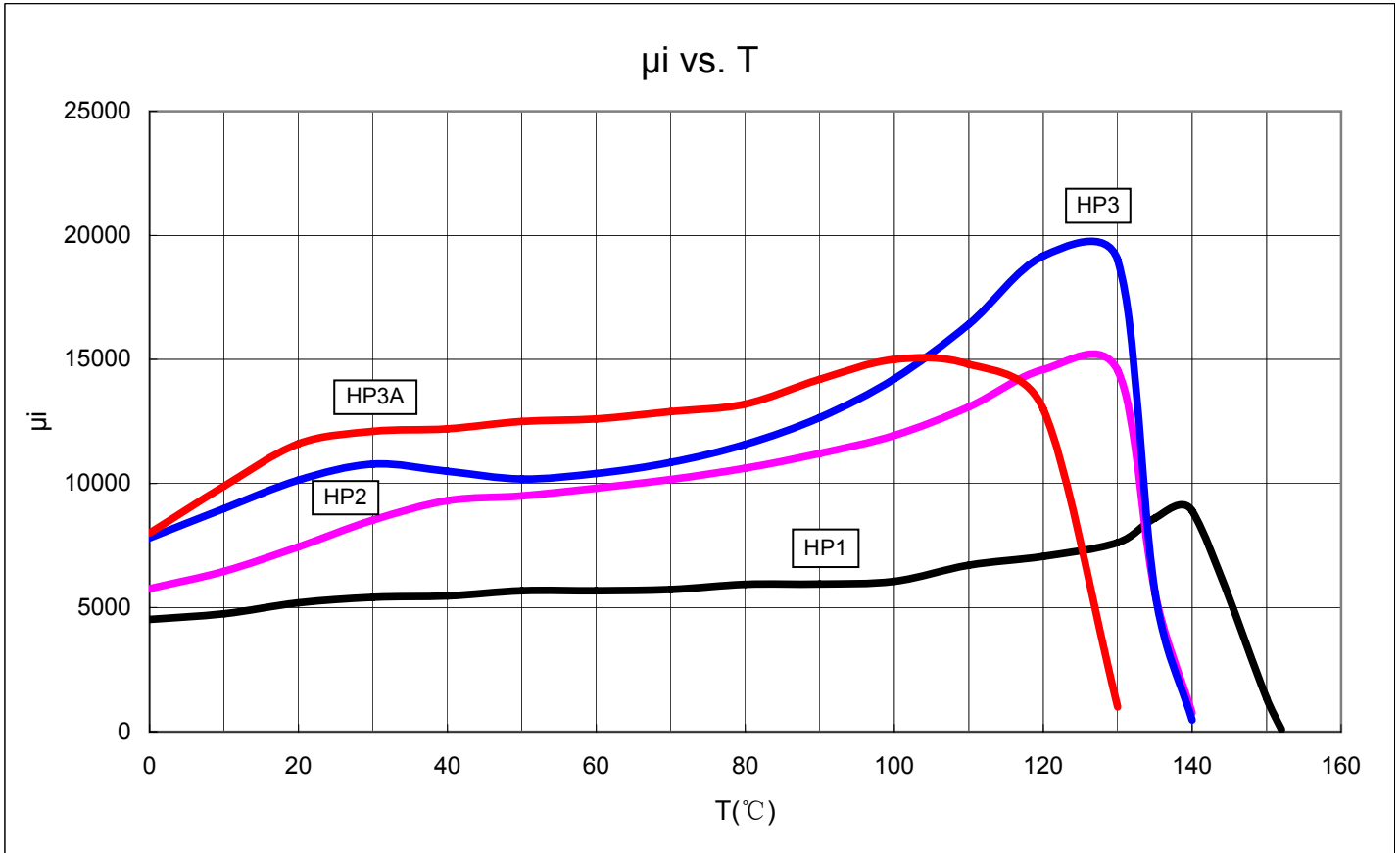
●功率损耗 vs.频率 Core Loss vs. Frequency



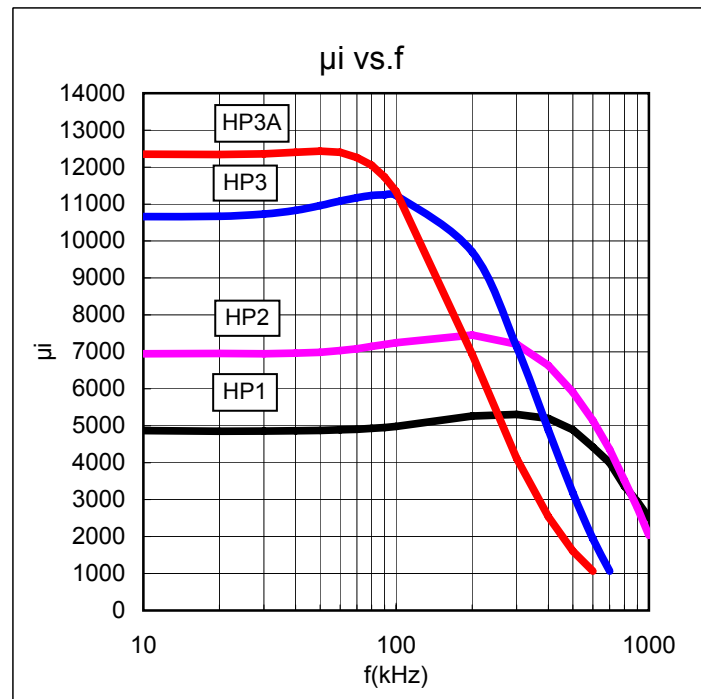
# 材料特性 MATERIAL CHARACTERISTICS

● 高磁导率铁氧体材料 High permeability ferrite materials

● 导磁率 vs. 温度  $\mu_i$  vs. Temperature



● 导磁率 vs. 频率  $\mu_i$  vs. Frequency



● 阻抗 vs. 频率  $Z \cdot C1/N^2$  vs. Frequency

