

TM83 功率鐵氧體材料 Power ferrite material TM83

特征 Feature

- 錳鋅寬溫低損耗材料
(Mn-Zn Wide-Temperature Low-Loss material)
- 高飽和磁通密度材料(High Bs ferrite material)
- 應用頻率為 100kHz 至 500kHz
(The application frequency is from 100kHz to 500kHz)

應用 Application

- 服務器電源(Server Power)
- 筆記本電腦適配器(PC Laptop Adapter)
- 開關電源(Switching power supply)
- 電源變壓器(Power transformer)
- 車載品類(Vehicle category)

CHARACTERISTICS (特性)	CONDITIONS (測試條件)		TYPICAL VALUE (典型值)	UNIT (單位)
Initial permeability μ_{iac} (初磁導率)	f=10kHz, B<0.25mT		3000 ±25%	
Amplitude permeability μ_a (振幅磁導率)	f=25kHz, B=200mT		>4000 >4200	
Saturation flux density Bs(飽和磁通密度)	1200A/m, 100Hz	25°C 100°C	545 425	mT
Remanence Br(剩磁)	1200A/m, 100Hz	25°C 100°C	70 60	mT
Coercivity Hc(矯頑力)	1200A/m, 100Hz	25°C 100°C	15 10	A/m
Curie Temperature Tc(居里溫度)	f=10kHz, B<0.25mT		≥240	°C
Density D(密度)	Archimedes method (阿基米德法)		4.9	g/cm ³
Electrical resistivity ρ (表面電阻)	DC Current (直流電流)		5	Ωm
Pcv (功率損耗)	100kHz, 200mT	25°C	240	kW/m ³
		100°C	250	
		120°C	280	
		140°C	320	
	300kHz, 100mT	25°C	190	
		100°C	220	
		120°C	260	
		140°C	300	
	400kHz, 125mT	25°C	630	
		100°C	820	
		120°C	970	
		140°C	1160	

注：各項數值均為環形磁芯 T25x15x8 測得的典型數值，由于幾何形狀和尺寸的影響，產品規格將與這些數據有所差異。

Note: All the values are typical values measured for the toroidal magnetic core T25x15x8, Product specifications will differ from these data due to the impact of geometry and dimensions.

Rev: A

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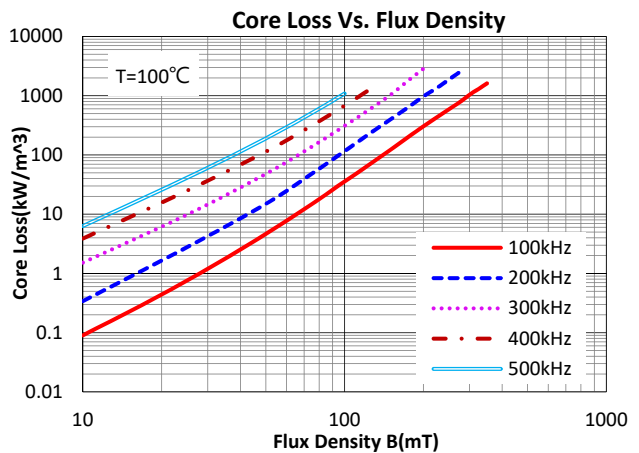
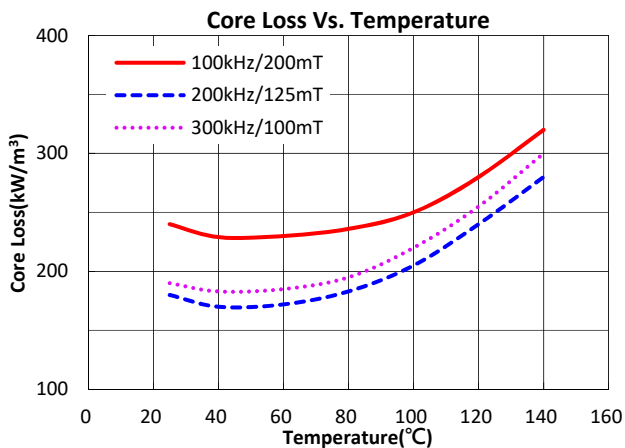
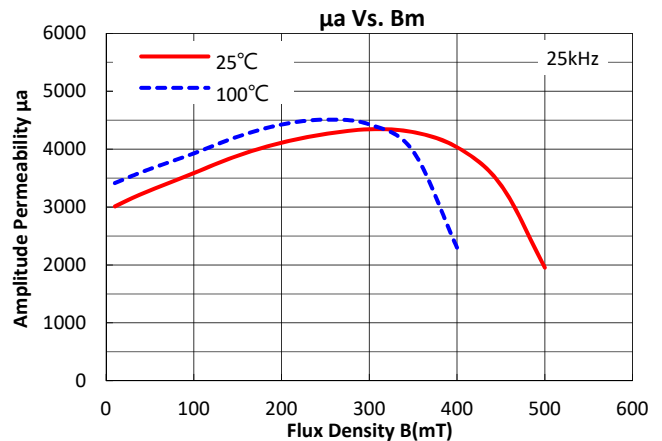
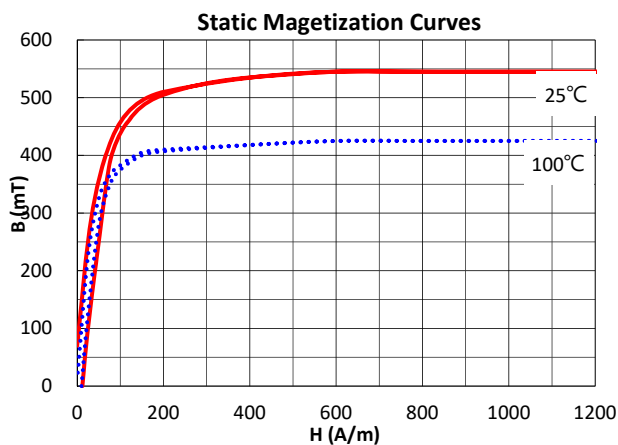
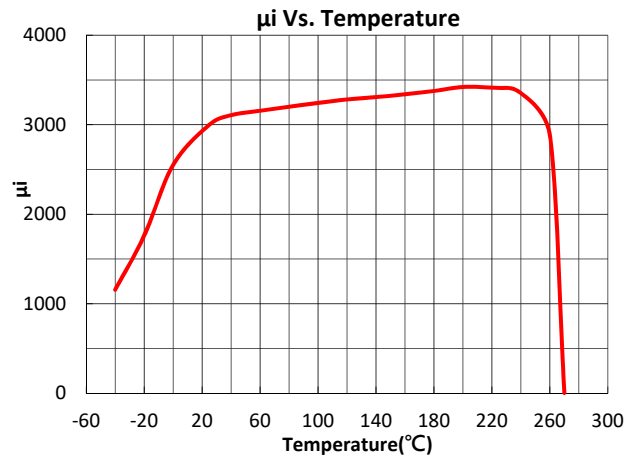
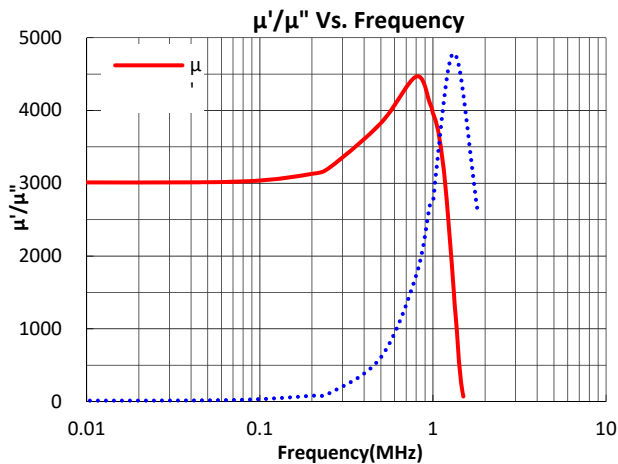
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● All specifications are subject to change without notice (規格變更時不會另行通知)



Steinmetz Model

$$P_{cv} = K * f^a * B^b$$

Temp.	Freq.(kHz)	K	a	b
100°C	≤300	4.69E-08	1.72071	2.73226
100°C	≤500	9.16E-08	1.62615	2.72509

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