ACME Electronics Corporation
越峯電子材料股份有限公司

Multi-gap Ferrite Core

P53 PQH50/50

2026/Jul. Version 1.0

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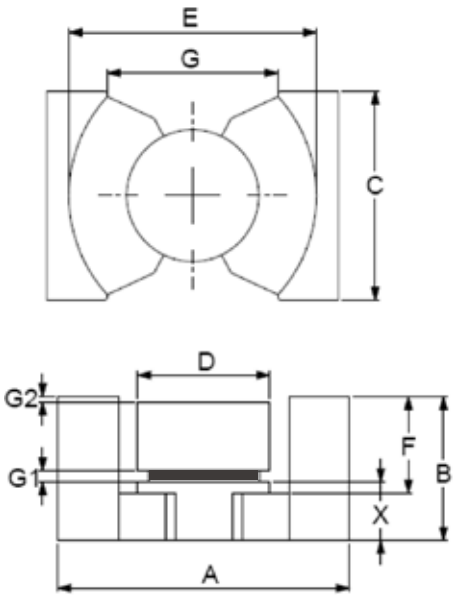
PQH50/50



Core dimensions:

A	50.00	± 0.70
B	25.00	± 0.20
C	32.00	± 0.60
D	20.00	± 0.35
E	44.00	± 0.70
F	18.00	± 0.20
G	32.50	± 0.70
X	9.30	± 0.20

Application Fields:

1. OBC
2. DC/DC Converter
3. Solar Inverter
4. UPS
5. Industrial SMPS
6. Telecom/Server SMPS

Characteristics:

$\sum L/A$	L_e	A_e	A_{min}	V_e	W_t /set
0.361 mm^{-1}	118.4 mm	328.3 mm^2	310.9 mm^2	38860 mm^3	200 g

Material	Part no.	G1(mm)	G2 (mm)	Inductance Factor A_L(nH/N^2)
P53	P53PQH50/50G240	0.40	0.20	240 ±10%
	P53PQH50/50G157	0.60	0.30	157 ±10%
	P53PQH50/50G113	1.00	0.50	113 ±10%

Custom A_L values, air gaps, and materials are available upon request.

High Frequency/Low Loss Material

P53

Material properties:

	Symbol	Unit	Measuring Conditions			P53
			Freq.	Flux den.	Temp.	
Initial Permeability	μi		≤10kHz	0.25mT	25°C	**1200** ±25%
Amplitude Permeability	μa		25kHz	200mT	25°C	**> 1900**
					100°C	**> 2000**
Power Loss	Pv	kW/m^3	300kHz	100mT	25°C	**350**
					100°C	**310**
			500kHz	50mT	25°C	**80**
					100°C	**60**
			500kHz	100mT	25°C	**650**
					100°C	**650**
			1000kHz	50mT	25°C	**300**
					100°C	**300**
Saturation Flux Density	Bs	mT	10kHz	1200A/m	25°C	**515**
					100°C	**420**
Remanence	Br	mT	10kHz	1200A/m	25°C	**180**
					100°C	**120**
Coercivity	Hc	A/m	10kHz	1200A/m	25°C	**38**
					100°C	**33**
Hysteresis Material Constant	η_B	$10^{-6}/mT$	10kHz	1.5-3.0mT	25°C	**< 1**
Disaccommodation Factor	D_F	10^{-6}	10kHz	< 0.25mT	25°C	**< 2**
Curie Temperature	Tc	°C				**≥ 280**
Resistivity	ρ	Ωm				**10.00**
Density	d	g/cm^3				**4.80**

High Frequency/Low Loss Material

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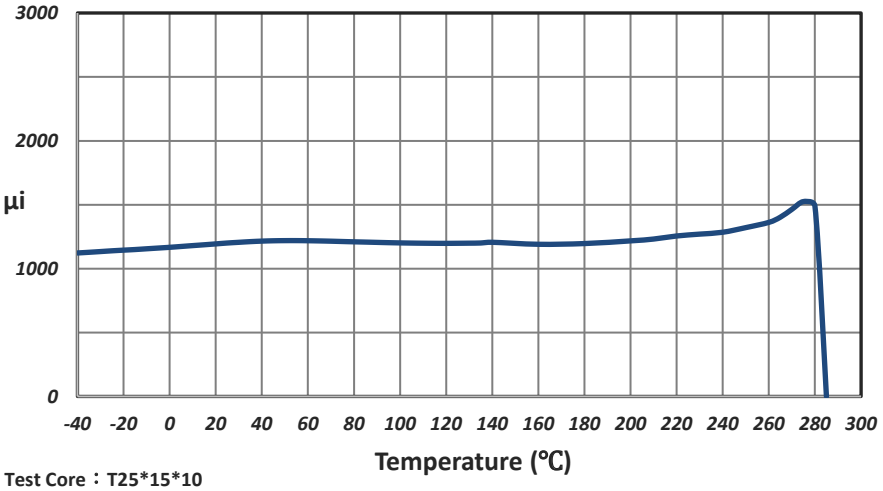
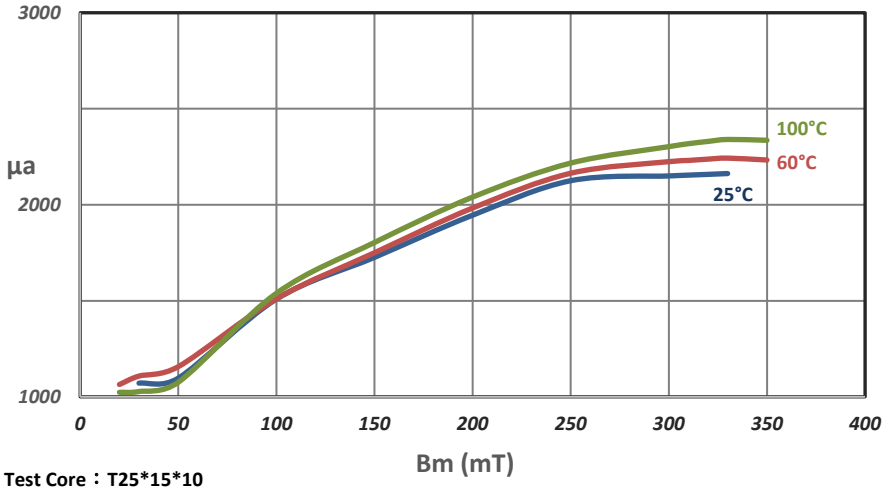
Initial Permeability vs Temperature



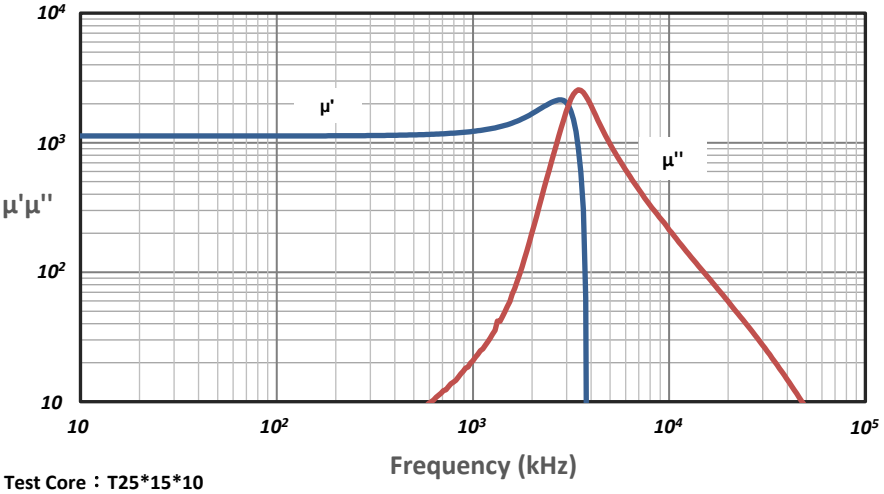
Test Core：T25*15*10

Amplitude Permeability vs Flux Density (Bm)



Test Core：T25*15*10

Complex Permeability vs Frequency



Test Core：T25*15*10

High Frequency/Low Loss Material

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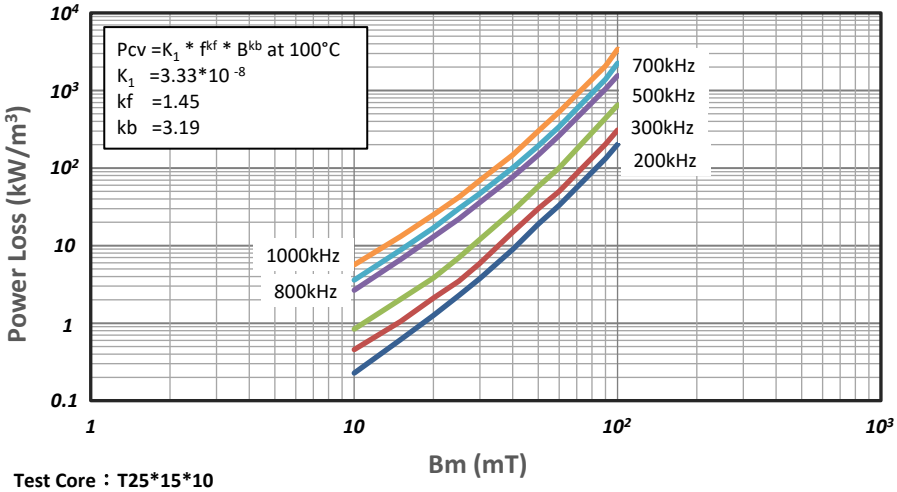
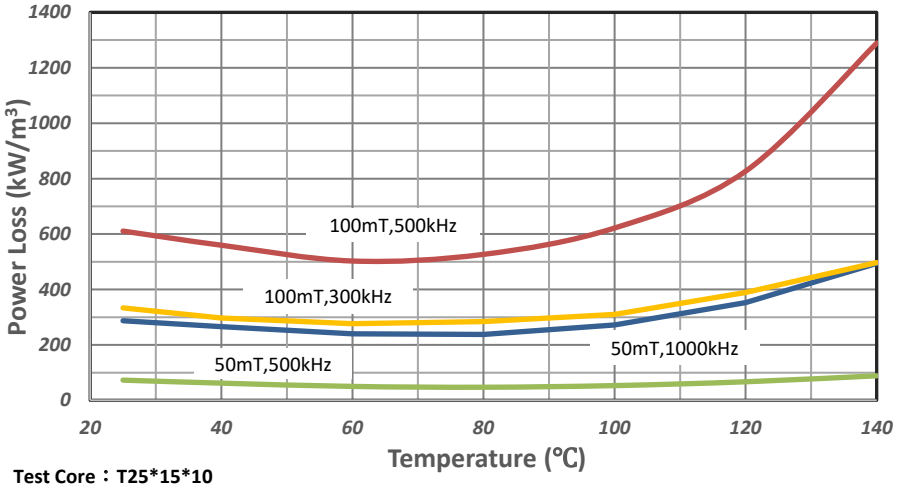
Power Loss vs Temperature/Flux Density/Frequency



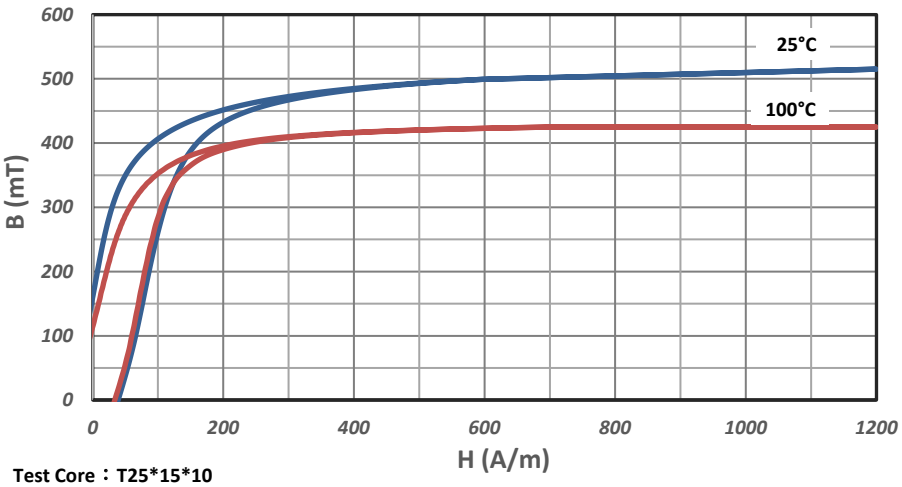
Test Core：T25*15*10

Power Loss vs Temperature



Test Core：T25*15*10

Saturation Flux Density vs Magnetic Field



Test Core：T25*15*10