



ACME Electronics Corporation

Material Characteristics

P453

REV:02

A Wide Temperature and Low Loss Power Material

	Symbol	Unit	Measuring Conditions			Wide Temperature Low Loss Material P453
			Freq.	Flux den.	Temp.	
Initial Permeability	μ_i		$\leq 10\text{KHz}$	0.25mT	25°C	3500 $\pm$ 25%
Amplitude Permeability	μ_a		25KHz	200mT	25°C	>5000
Power Loss	P_v	KW/m^3	100KHz	200mT	100°C	>5000
			100KHz	200mT	25°C	230
			100KHz	200mT	100°C	260
			300KHz	100mT	25°C	240
Saturation Flux Density	B_{ms}	mT	10KHz	$H=1200\text{A/m}$	100°C	300
					25°C	145
					100°C	180
Remanence	B_{rms}	mT	10KHz	$H=1200\text{A/m}$	25°C	535
					100°C	425
Coercivity	H_c	A/m	10KHz	$H=1200\text{A/m}$	25°C	67
					100°C	60
Hysteresis Material Constant	η_B	$10^{-6}/\text{mT}$	10KHz	1.5-3.0mT	25°C	8
Disaccommodation Factor	D_F	10^{-6}	10KHz	< 0.25mT	25°C	7
Curie Temperature	T_c	°C				≥ 215
Resistivity	ρ	Ωm				5.00
Density	d	g/cm^3				4.90

Note: Material characteristics are typical for a toroid core.

Product specification will differ from these data due to the influence of geometry and size.

