

DATA SHEET

MPP Material specification

New data

2007 Aug 01

Material specification

MPP

MPP SPECIFICATIONS

A medium frequency alloy powder material with the lowest loss density for use in power inductors and output chokes.

	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	14 – 300	
T_C		≥ 460	°C
thermal conductivity		0.08	W.mm ⁻¹ .K ⁻¹
linear expansion coefficient		12.9×10^{-6}	K ⁻¹
density for 125 μ		≈ 8700	kg/m ³

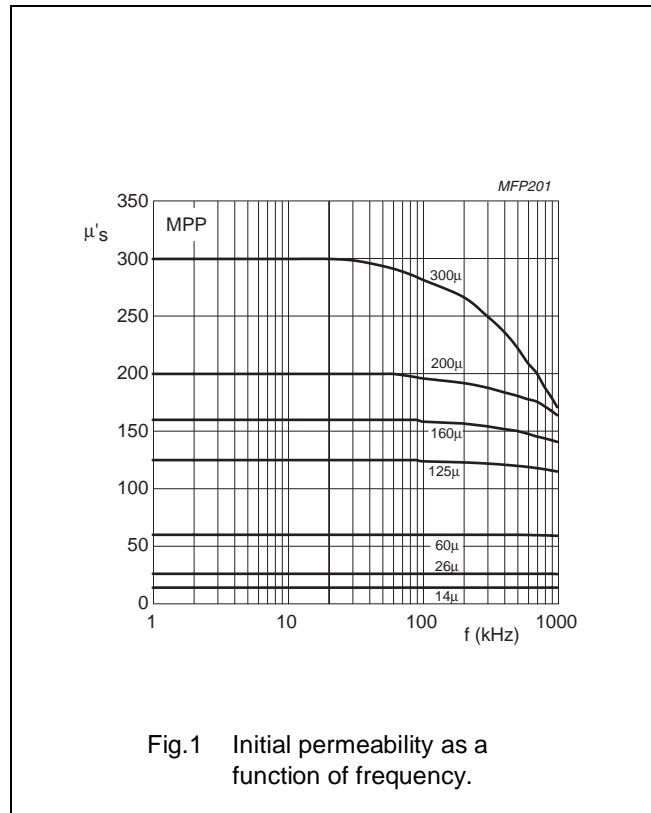


Fig.1 Initial permeability as a function of frequency.

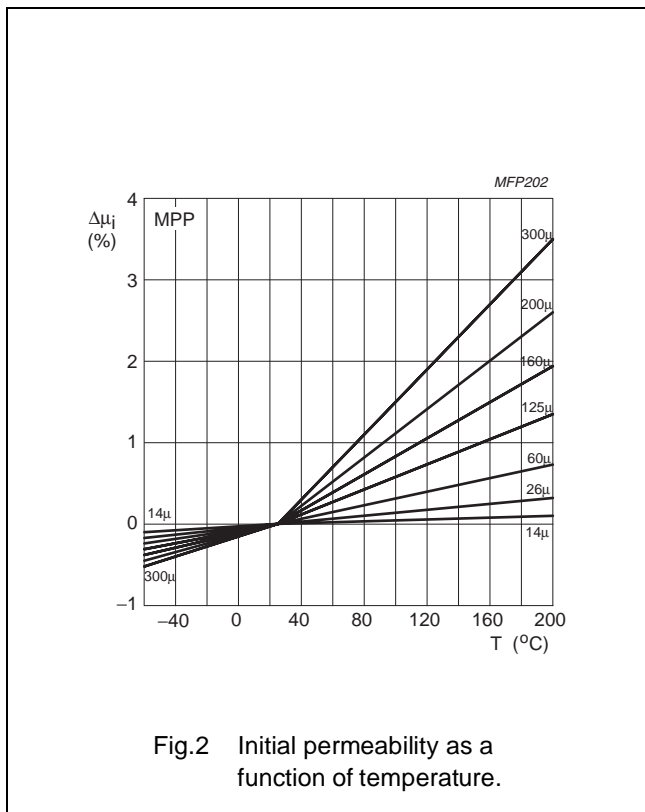


Fig.2 Initial permeability as a function of temperature.

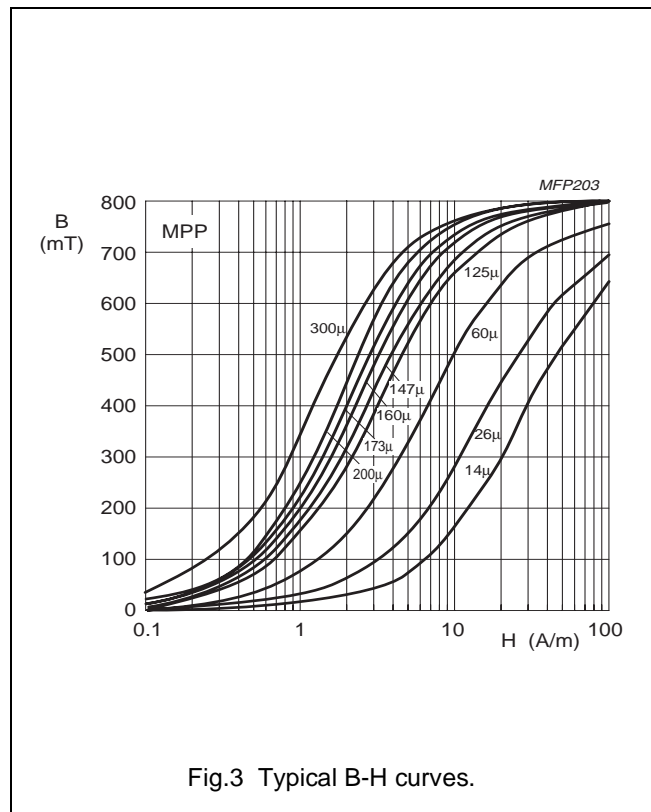


Fig.3 Typical B-H curves.

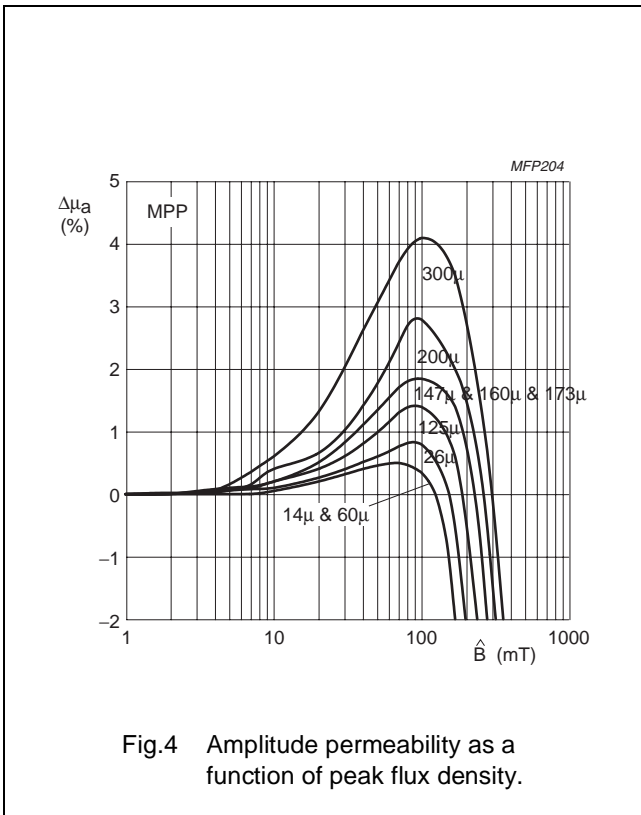


Fig.4 Amplitude permeability as a function of peak flux density.

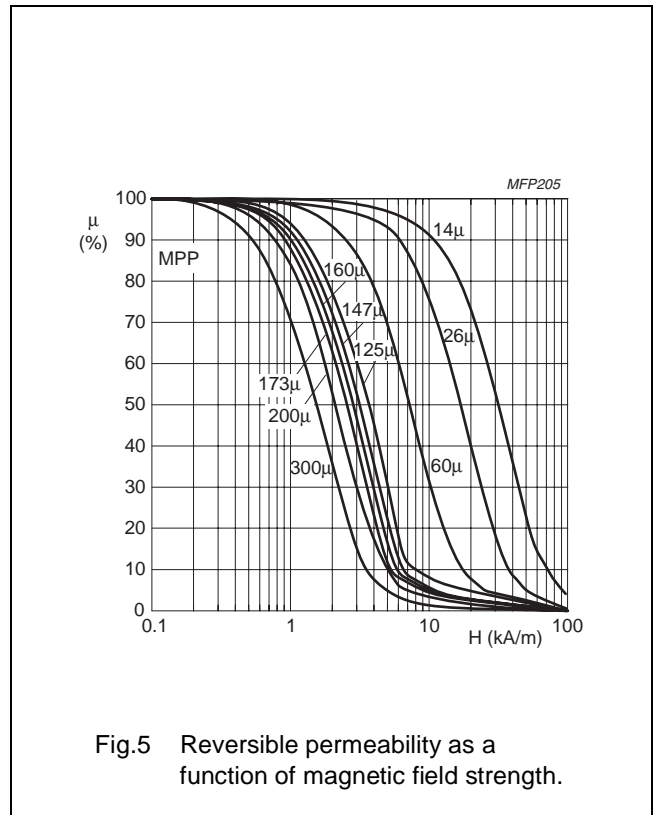


Fig.5 Reversible permeability as a function of magnetic field strength.

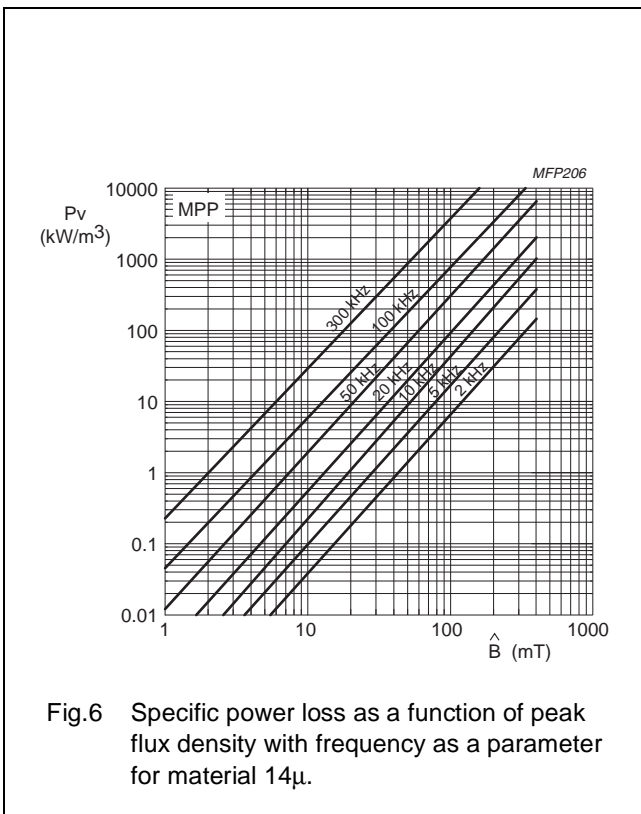


Fig.6 Specific power loss as a function of peak flux density with frequency as a parameter for material 14 μ .

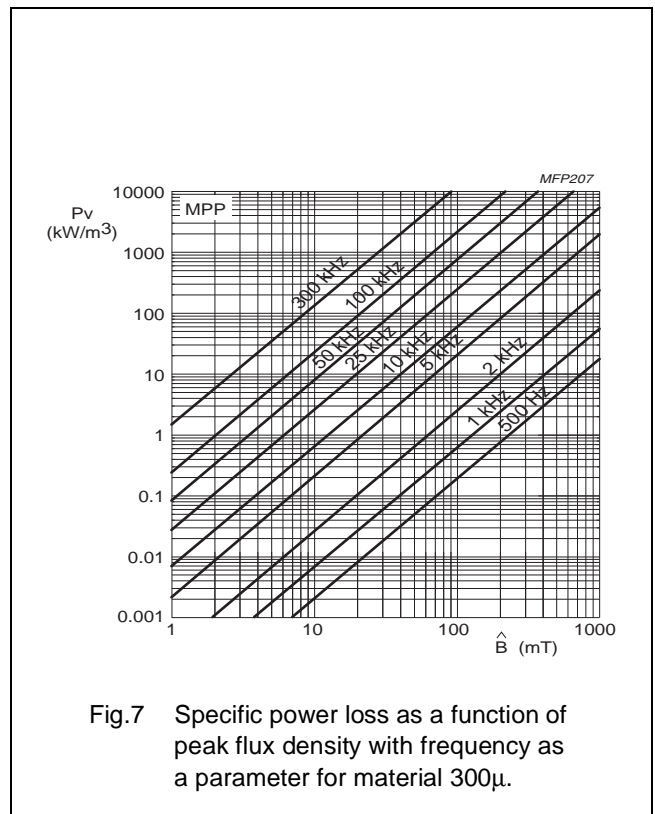


Fig.7 Specific power loss as a function of peak flux density with frequency as a parameter for material 300 μ .




DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype		These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
Design-in		These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		These products are not recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.