

DATA SHEET

4B3 Material specification

Supersedes data of September 2004

2008 Sep 01

Material specification

4B3

4B3 SPECIFICATIONS

Medium permeability specialty NiZn ferrite only used in large toroids and machined products mainly for scientific particle accelerators operating at frequencies < 10 MHz.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	$300 \pm 20\%$	
B	25 °C; 10 kHz; 3000 A/m 100 °C; 10 kHz; 3000 A/m	≈ 420 ≈ 350	mT
ρ	DC; 25 °C	$\approx 10^5$	Ωm
T_C		≥ 250	°C
density		≈ 5000	kg/m^3

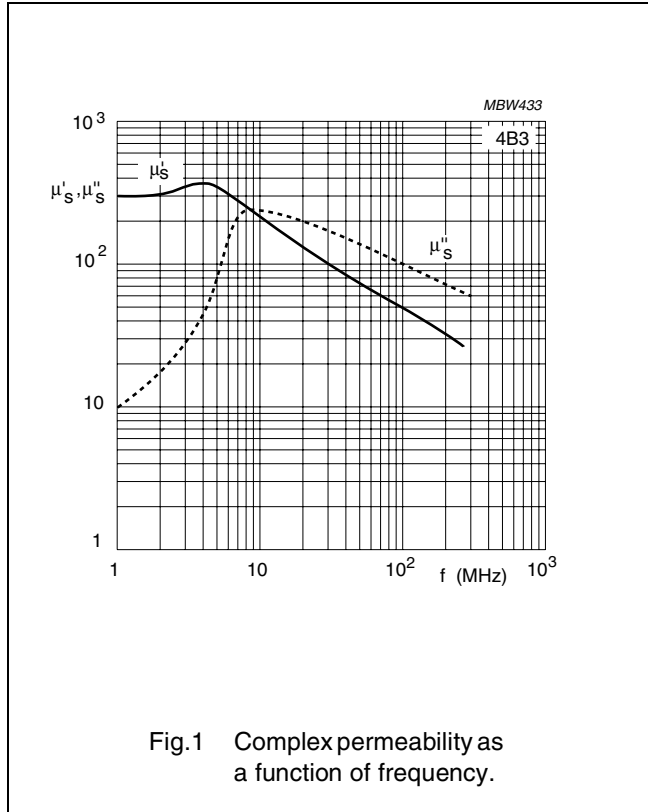


Fig.1 Complex permeability as a function of frequency.

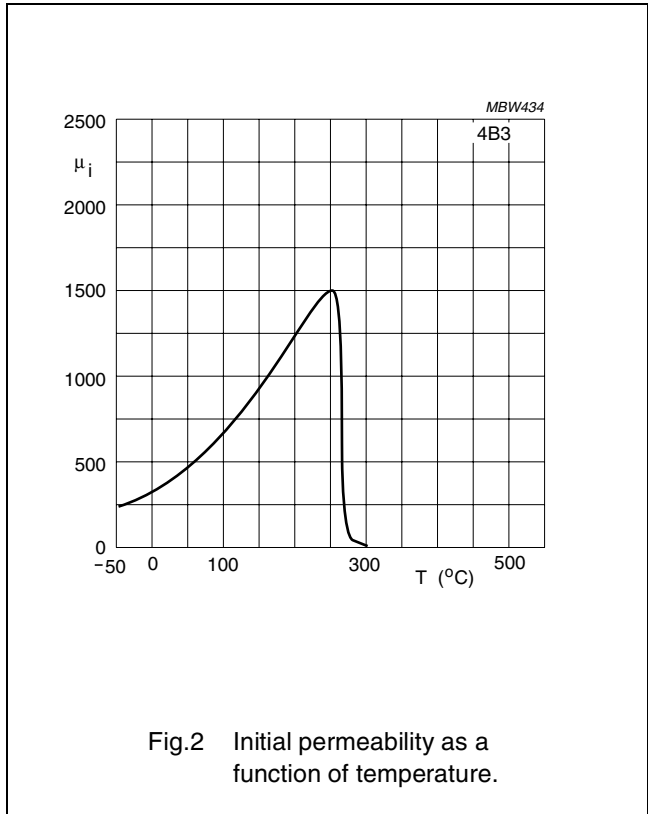


Fig.2 Initial permeability as a function of temperature.

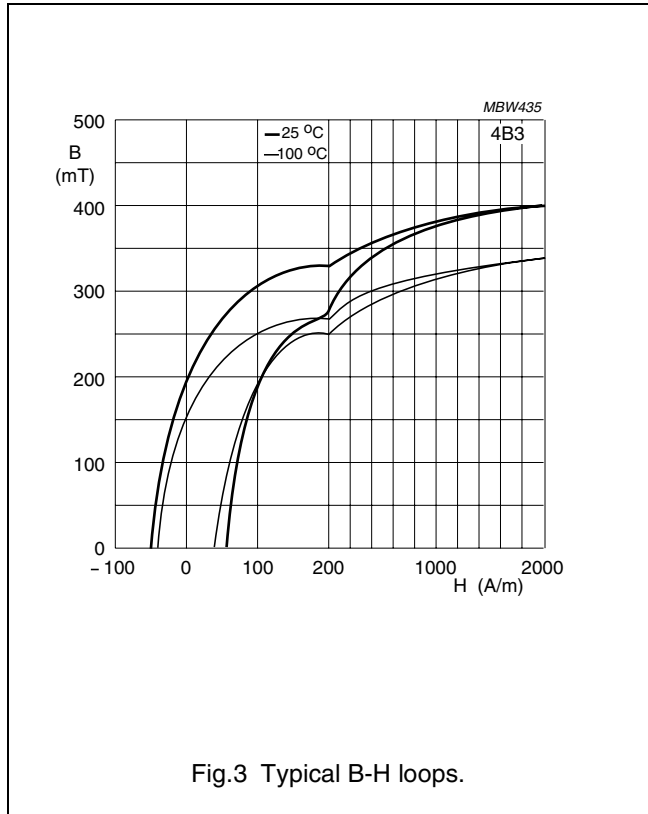


Fig.3 Typical B-H loops.




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
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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.