

DATA SHEET

4E2

Material specification

Supersedes data of September 2004

2008 Sep 01



FERROXCUBE
A YAGEO COMPANY

Material specification

4E2

4E2 SPECIFICATIONS

Low permeability specialty NiZn ferrite only used in large toroids and machined products mainly for scientific particle accelerators operating at frequencies up to 100 MHz..

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	$25 \pm 20\%$	
B	25 °C; 10 kHz; 10 kA/m 100 °C; 10 kHz; 10 kA/m	≈ 350 ≈ 310	mT
ρ	DC, 25 °C	$\approx 10^5$	Ωm
T_C		≥ 400	°C
density		≈ 4000	kg/m^3

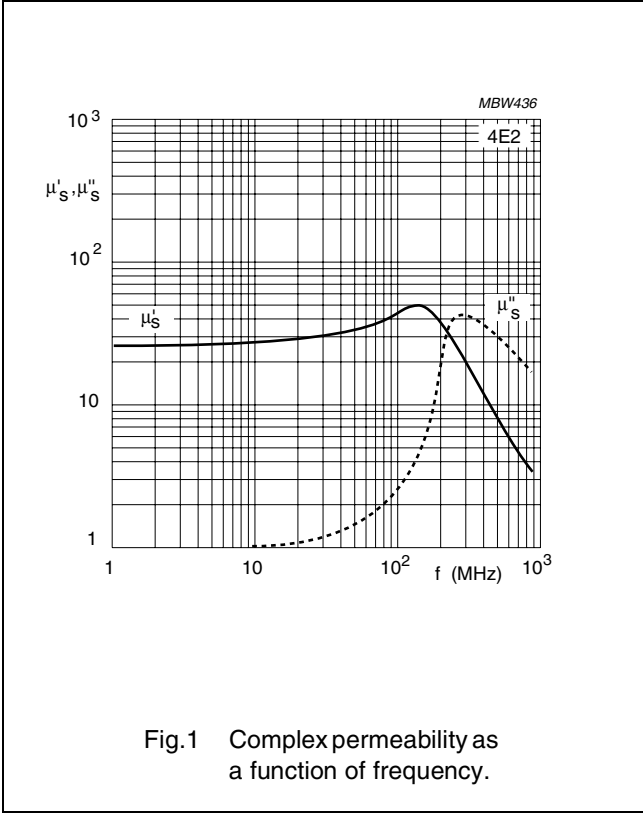


Fig.1 Complex permeability as a function of frequency.

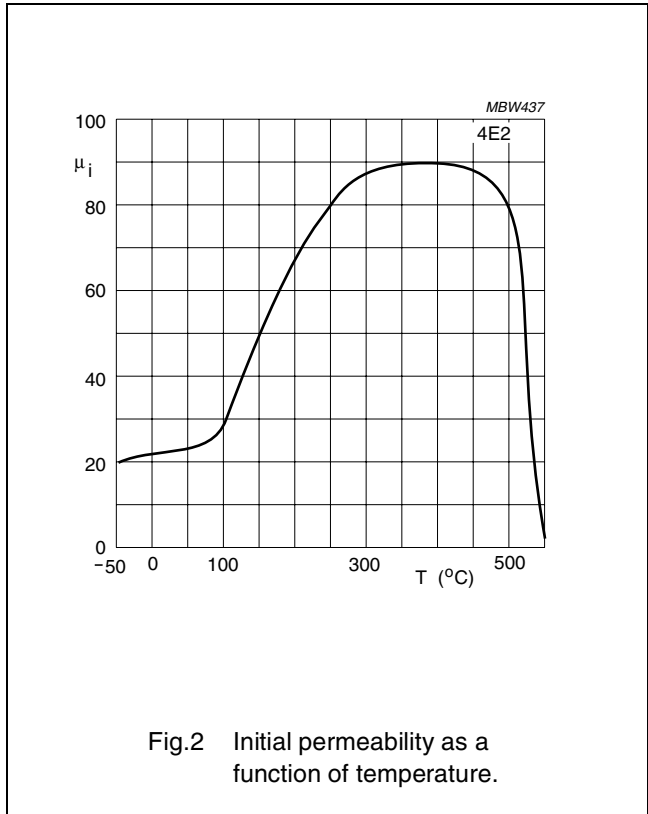


Fig.2 Initial permeability as a function of temperature.

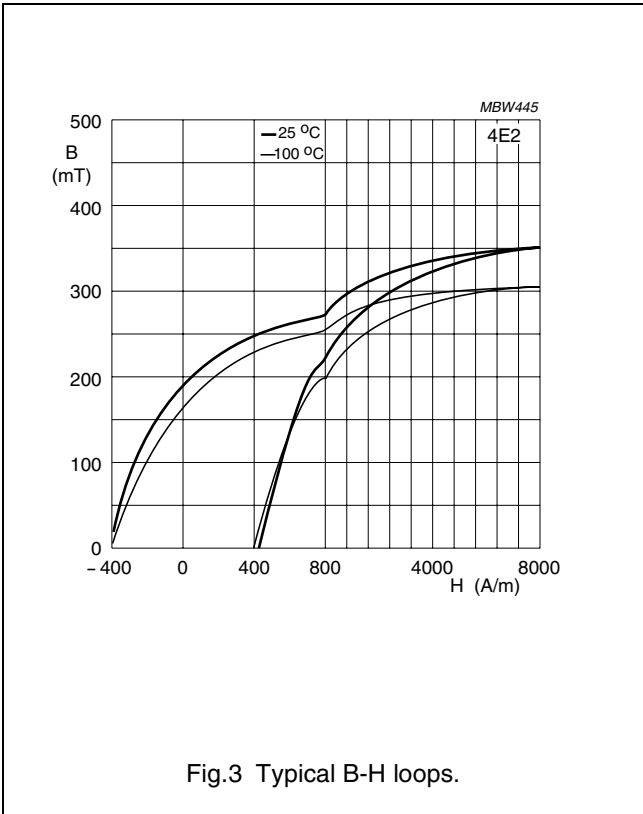


Fig.3 Typical B-H loops.




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
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.