

DATA SHEET

4B3 Material specification

Supersedes data of September 2004

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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 |

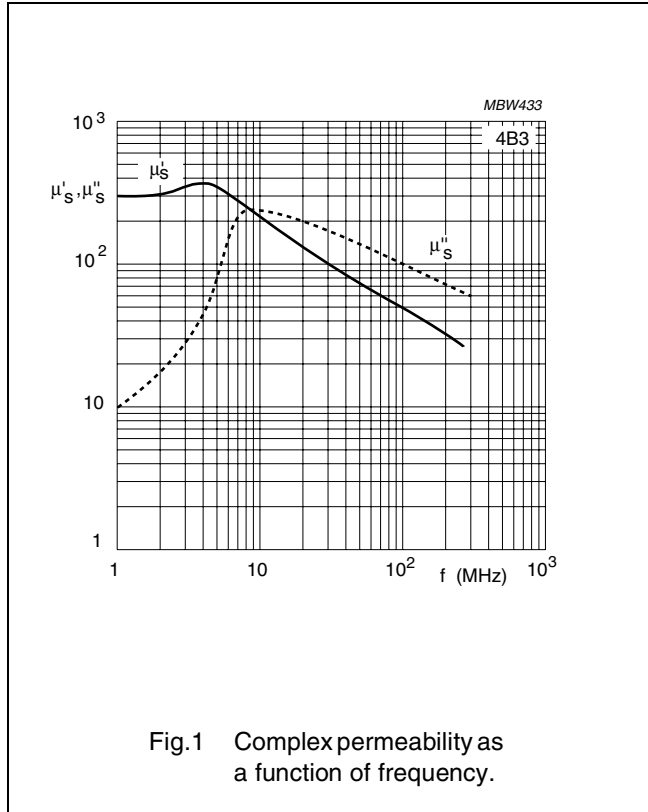


Fig.1 Complex permeability as a function of frequency.

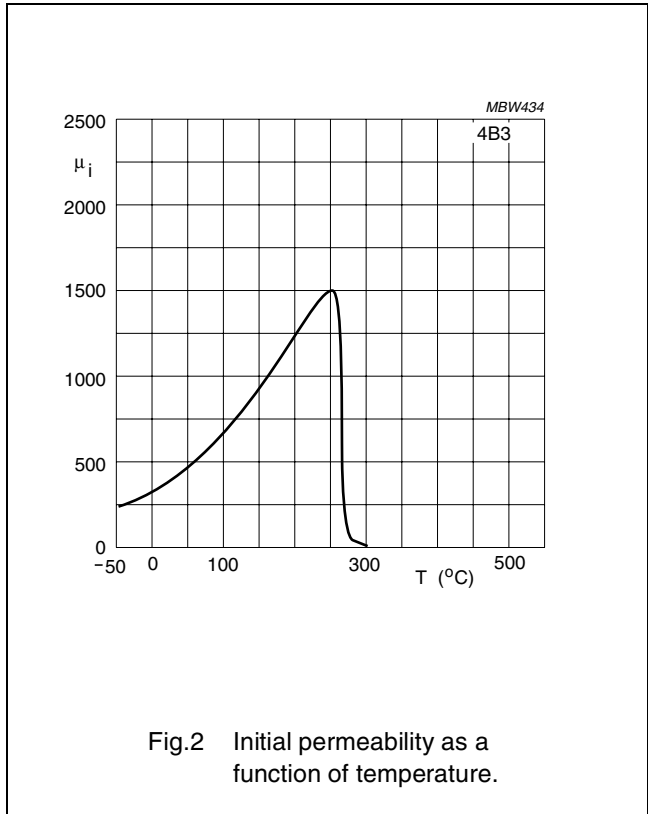


Fig.2 Initial permeability as a function of temperature.

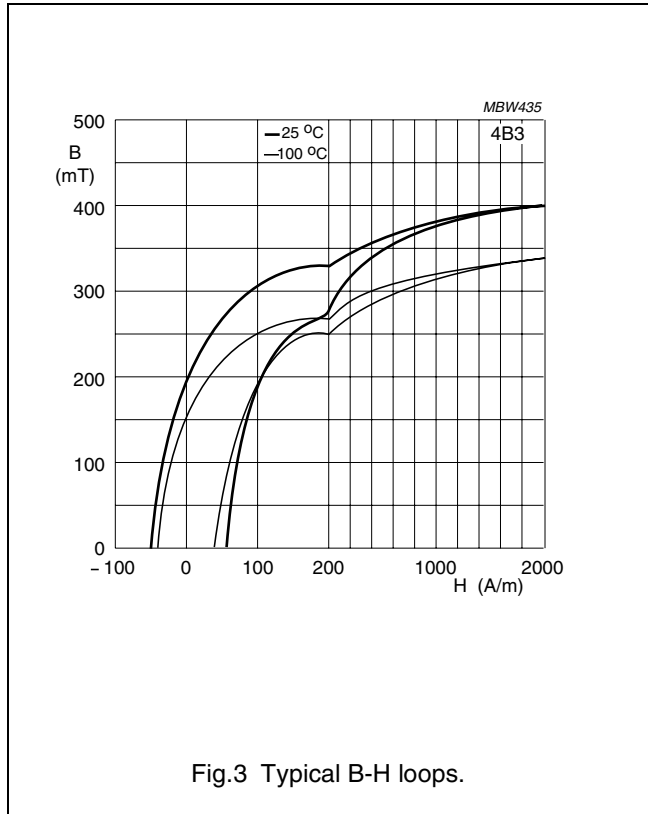


Fig.3 Typical B-H loops.




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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