## **FERROXCUBE**

# DATA SHEET

# **3B7**Material specification

Supersedes data of September 2004

2008 Sep 01

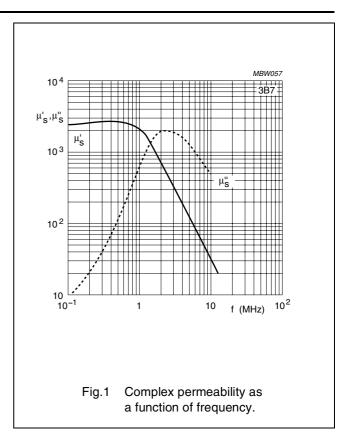


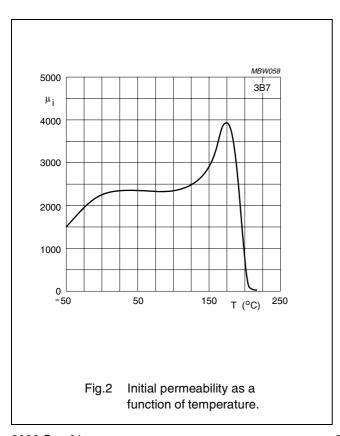
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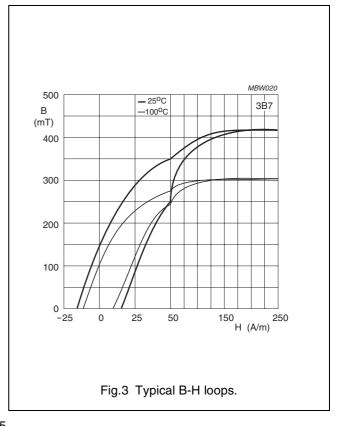
#### **3B7 SPECIFICATIONS**

A low frequency filter material optimized for frequencies up to 0.1 MHz.

| SYMBOL            | CONDITIONS                        | VALUE                          | UNIT              |
|-------------------|-----------------------------------|--------------------------------|-------------------|
| μί                | 25 °C; ≤10 kHz;<br>0.25 mT        | 2300 ±20%                      |                   |
| В                 | 25 °C; 10 kHz;<br>1200 A/m        | ≈ 440                          | mT                |
|                   | 100 °C; 10 kHz;<br>1200 A/m       | ≈ 320                          |                   |
| $tan\delta/\mu_i$ | 25 °C; 100 kHz;<br>0.25 mT        | ≤ 5 × 10 <sup>-6</sup>         |                   |
|                   | 25 °C; 500 kHz;<br>0.25 mT        | ≈ 25 × 10 <sup>-6</sup>        |                   |
|                   | 25 °C; 1 MHz; 0.25 mT             | ≈ 120 × 10 <sup>-6</sup>       |                   |
| D <sub>F</sub>    | 25 °C; 10 kHz; 0.25 mT            | $\leq 4.5 \times 10^{-6}$      |                   |
| $\alpha_{F}$      | +20 to 70 °C; ≤10 kHz;<br>0.25 mT | (0 ±0.6)<br>× 10 <sup>-6</sup> | K <sup>-1</sup>   |
| ρ                 | DC, 25 °C                         | ≈ 1                            | Ωm                |
| T <sub>C</sub>    |                                   | ≥ 170                          | °C                |
| density           |                                   | ≈ 4800                         | kg/m <sup>3</sup> |

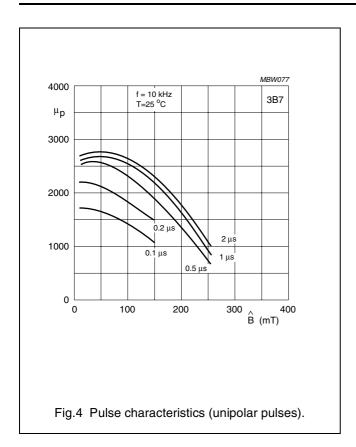






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## Material specification

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#### **DATA SHEET STATUS DEFINITIONS**

| DATA SHEET<br>STATUS      | PRODUCT<br>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 | prot       | 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 | des        | 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   | sup        | These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.         |  |

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