

# DATA SHEET

## **3C11** Material specification

Supersedes data of September 2004

2008 Sep 01

Material specification

3C11

3C11 SPECIFICATIONS

A medium permeability material mainly for use in current compensated chokes in EMI-suppression filters.

| SYMBOL             | CONDITIONS  | VALUE   | UNIT              |
|--------------------|---|---|-------------------|
| $\mu_i$            | 25 °C; $\leq 10$ kHz;<br>0.25 mT                          | $4300 \pm 20\%$                                       |                   |
| B                  | 25 °C; 10 kHz;<br>1200 A/m<br>100 °C; 10 kHz;<br>1200 A/m | $\approx 390$<br>$\approx 230$                        | mT                |
| $\tan\delta/\mu_i$ | 25 °C; 100 kHz;<br>0.25 mT<br>25 °C; 300 kHz;<br>0.25 mT  | $\leq 20 \times 10^{-6}$<br>$\leq 200 \times 10^{-6}$ |                   |
| $\rho$             | DC; 25 °C   | $\approx 1$   | $\Omega\text{m}$  |
| $T_C$              |   | $\geq 125$  | °C                |
| density            |   | $\approx 4900$  | kg/m <sup>3</sup> |

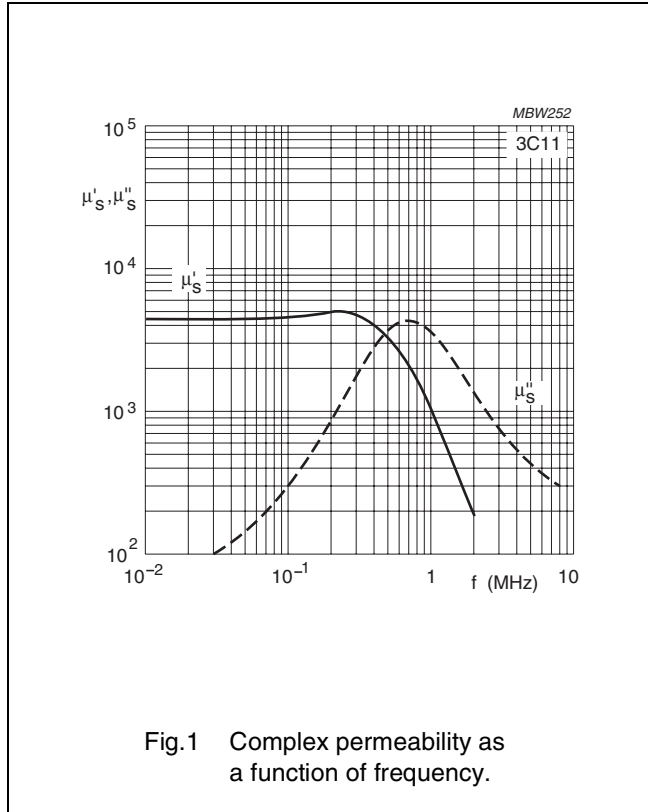


Fig.1 Complex permeability as a function of frequency.

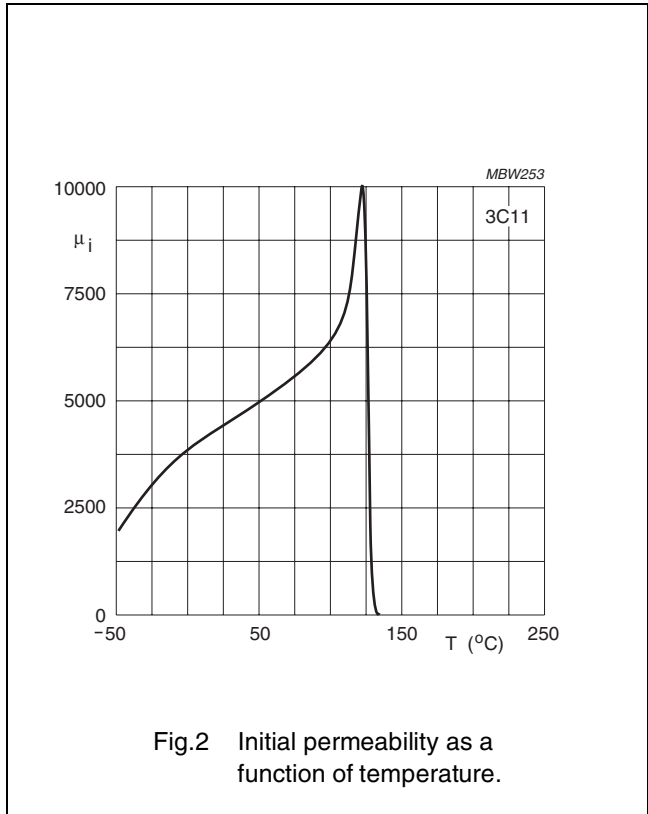


Fig.2 Initial permeability as a function of temperature.

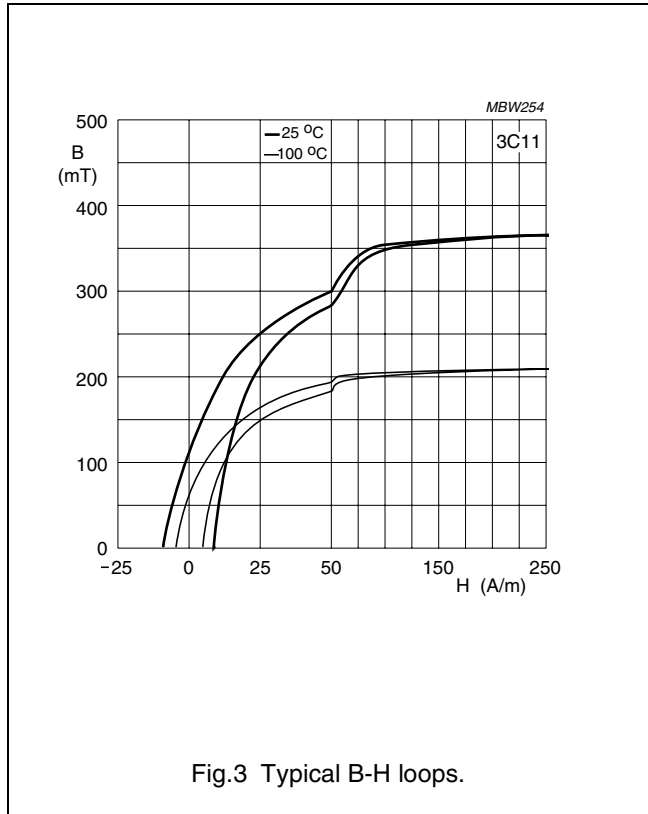
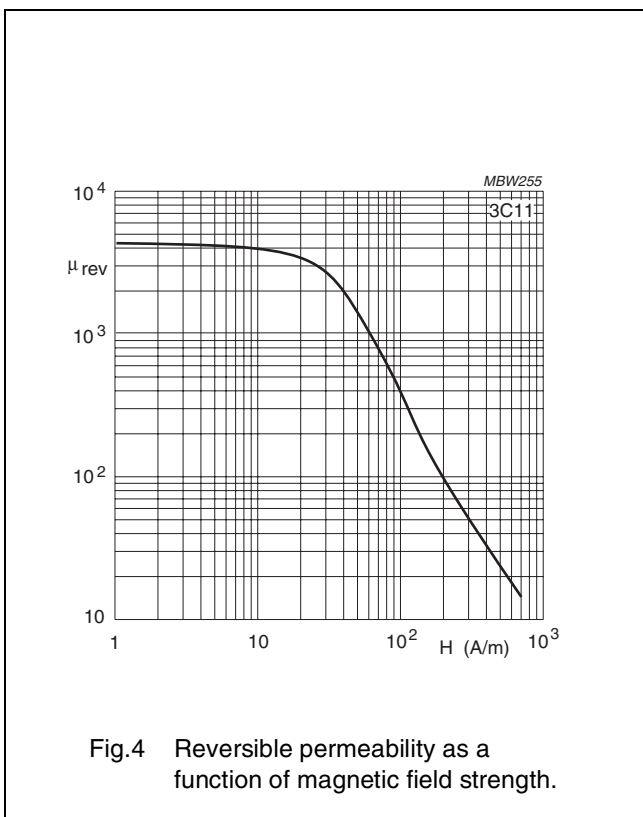


Fig.3 Typical B-H loops.






**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.     |
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