

# DATA SHEET

## **3S3** Material specification

Supersedes data of September 2004

2008 Sep 01

**3S3 SPECIFICATIONS**

This wideband EMI-suppression material is specified on impedance and optimized for frequencies from 30 to 1000 MHz in applications with high bias currents at elevated temperatures (e.g. rods for chokes in commutation motors).

SYMBOL	CONDITIONS	VALUE	UNIT
$\mu_i$	25 °C; $\leq 10$ kHz; 0.25 mT	$\approx 350$	
B	25 °C; 10 kHz; 1200 A/m 100 °C; 10 kHz; 1200 A/m	$\approx 320$ $\approx 270$	mT
$ Z ^{(1)}$	25 °C; 30 MHz 25 °C; 100 MHz 25 °C; 300 MHz	$\geq 25$ $\geq 60$ $\geq 100$	$\Omega$
$\rho$	DC; 25 °C	$\approx 10^4$	$\Omega\text{m}$
$T_C$		$\geq 225$	$^{\circ}\text{C}$
density		$\approx 4800$	$\text{kg/m}^3$

**Note**

1. Measured on a bead  $\varnothing 5 \times \varnothing 2 \times 10$  mm.

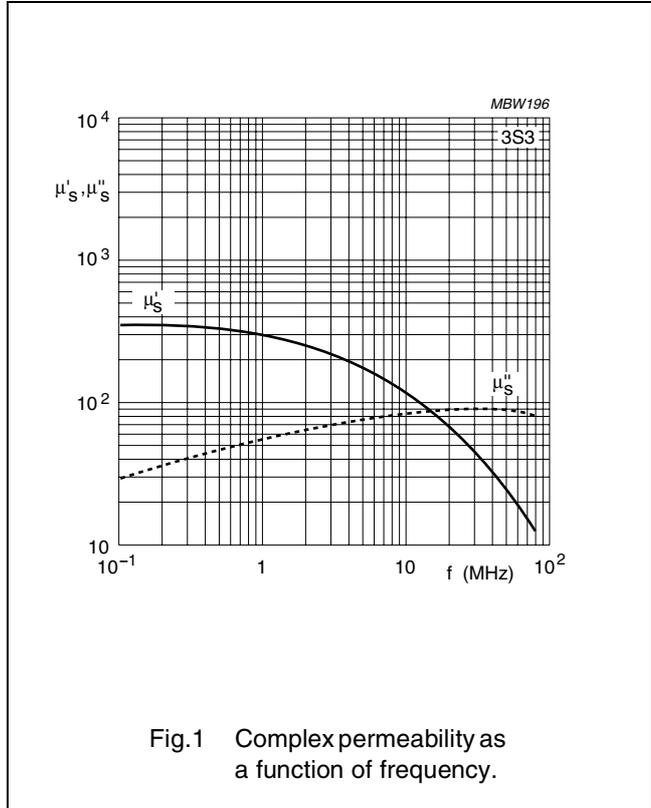


Fig.1 Complex permeability as a function of frequency.

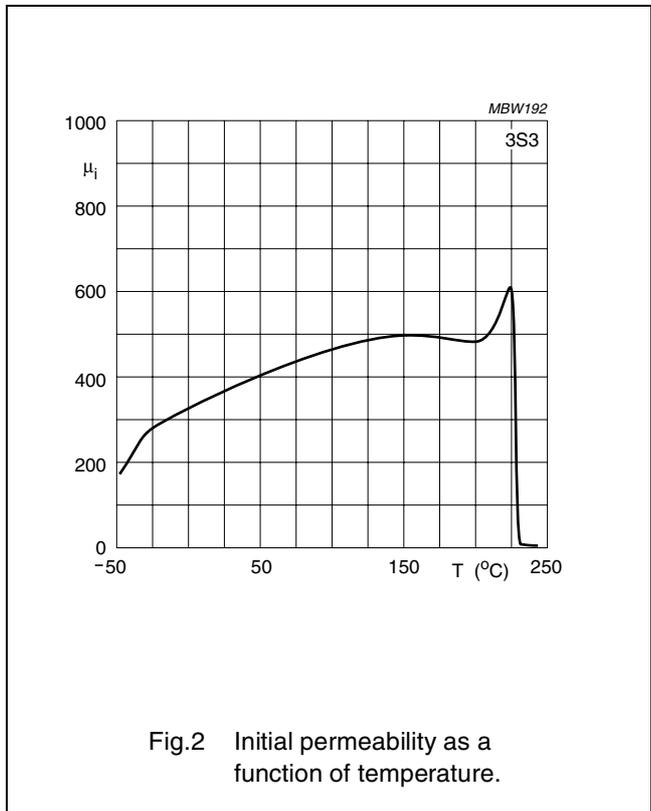


Fig.2 Initial permeability as a function of temperature.

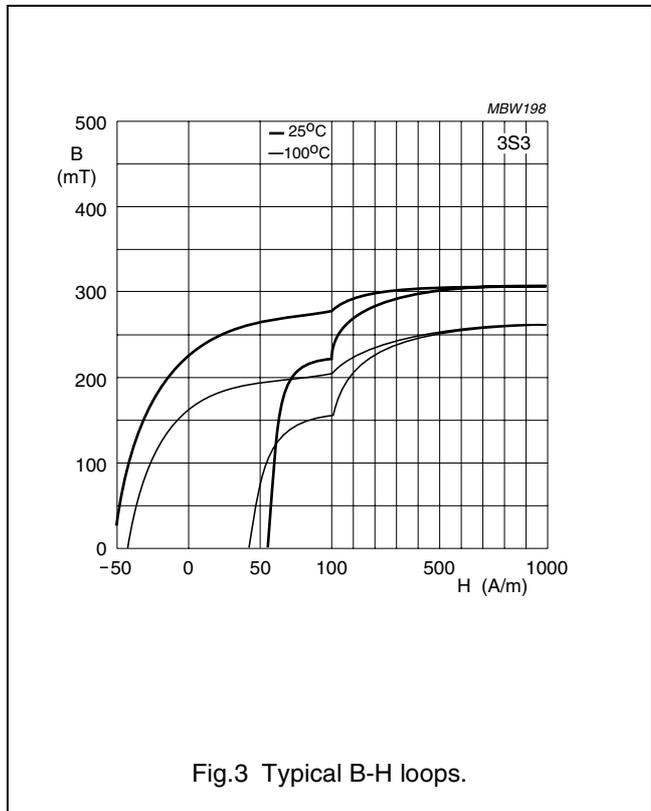


Fig.3 Typical B-H loops.

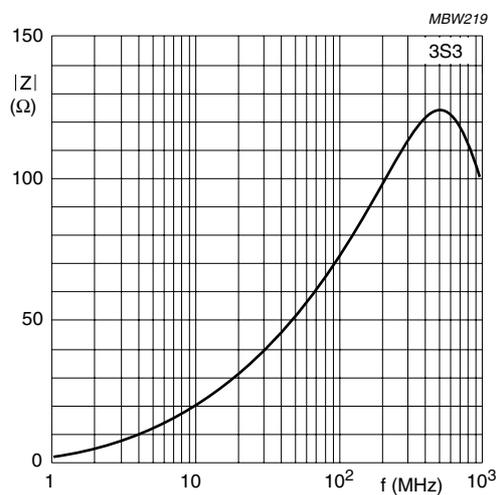


Fig.4 Impedance as a function of frequency measured on a bead  $\varnothing 5 \times \varnothing 2 \times 10$  mm.

**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**

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<b>Prototype</b>		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.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
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