

# DATA SHEET

**3E6**

Material specification

Supersedes data of November 2000

2002 Feb 01

Material specification

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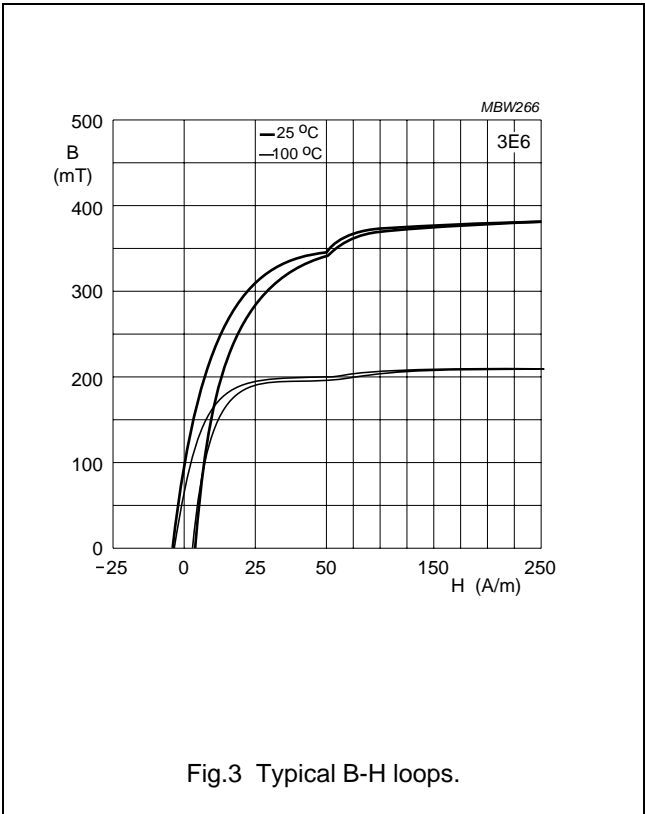
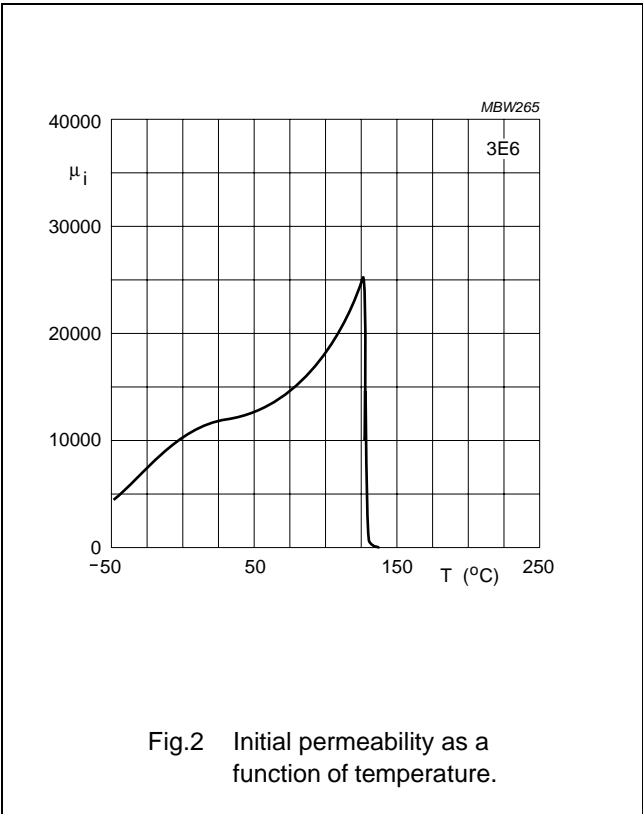
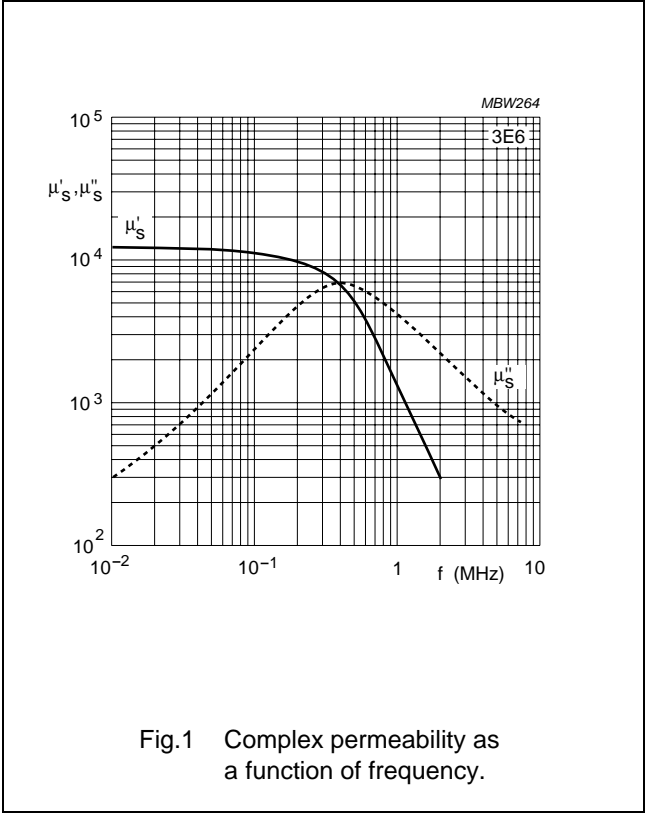
3E6 SPECIFICATIONS

A high permeability material optimized for use in wideband transformers as well as EMI-suppression filters.

	CONDITIONS	VALUE <sup>(1)</sup>	UNIT
$\mu_i$	25 °C; $\leq 10$ kHz; 0.1 mT	$12000 \pm 20\%$	
B	25 °C; 10 kHz; 250 A/m 100 °C; 10 kHz; 250 A/m	$\approx 380$ $\approx 210$	mT
$\tan\delta/\mu_i$	25 °C; 10 kHz; 0.1 mT 25 °C; 30 kHz; 0.1 mT	$\leq 10 \times 10^{-6}$ $\leq 30 \times 10^{-6}$	
$\eta_B$	25 °C; 10 kHz; 1.5 to 3 mT	$\leq 1 \times 10^{-3}$	T <sup>-1</sup>
$\rho$	DC; 25 °C	$\approx 0.1$	$\Omega\text{m}$
$T_C$		$\geq 130$	°C
density		$\approx 4900$	kg/m <sup>3</sup>

Note

1. Measured on sintered, non-ground ring cores of dimensions  $\varnothing 14 \times \varnothing 9 \times 5$  which are not subjected to external stresses.



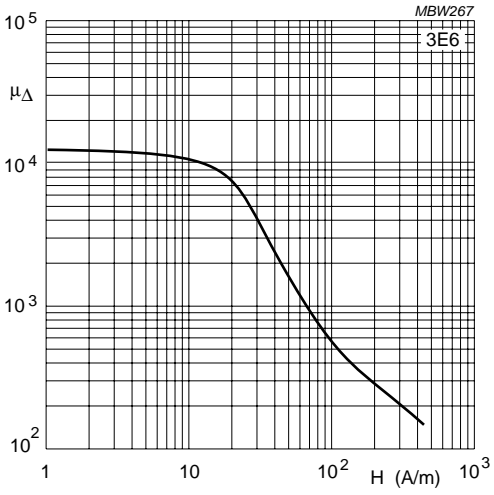


Fig.4 Incremental permeability as a function of magnetic field strength.

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## 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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Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		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.