

# DATA SHEET

**3E28**

Material specification

Supersedes data of February 2002

2004 Sep 01

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3E28 SPECIFICATIONS

A medium permeability material optimized for use in wideband LAN transformers with a high DC-bias current over a wide temperature range.

SYMBOL	CONDITIONS	VALUE	UNIT
$\mu_i$	25 °C; $\leq 10$ kHz; 0.25 mT	$4000 \pm 20\%$	
B	25 °C; 10 kHz; 1200 A/m	$\approx 440$	mT
	100 °C; 10 kHz; 1200 A/m	$\approx 280$	
$\tan\delta/\mu_i$	25 °C; 100 kHz; 0.25 mT	$\leq 5 \times 10^{-6}$	
$\rho$	DC; 25 °C	$\approx 1$	$\Omega\text{m}$
$T_C$		$\geq 145$	°C
density		$\approx 4800$	$\text{kg/m}^3$

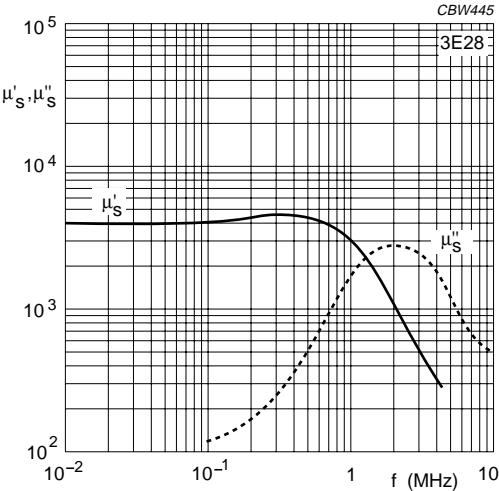


Fig.1 Complex permeability as a function of frequency.

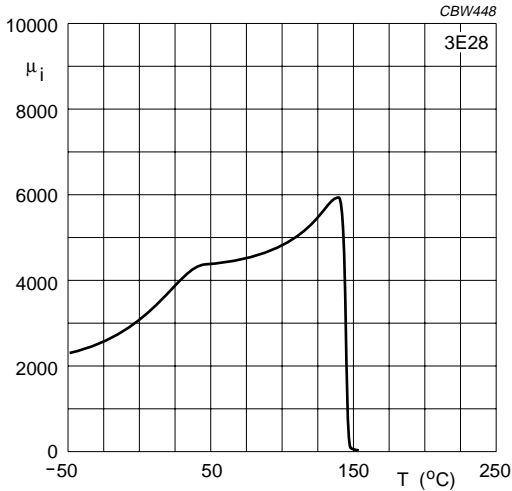


Fig.2 Initial permeability as a function of temperature.

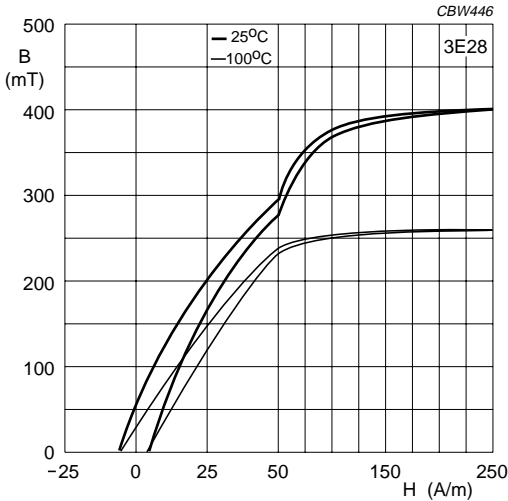


Fig.3 Typical B-H loops.

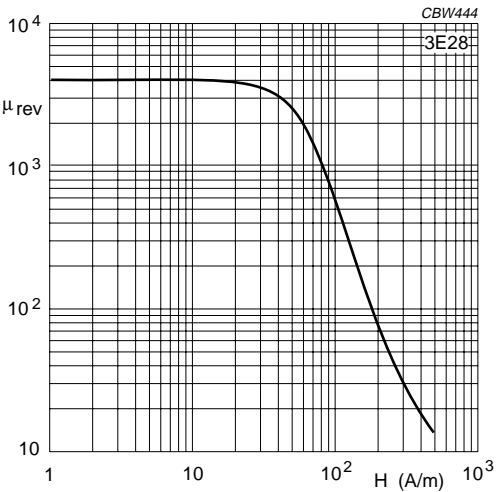


Fig.4 Reversible permeability as a function of magnetic field strength.

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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

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