

# DATA SHEET

## **3F3** Material specification

Supersedes data of September 2004

2008 Sep 01

Material specification

3F3

3F3 SPECIFICATIONS

A medium frequency power material for use in power and general purpose transformers at frequencies of 0.2 - 0.5 MHz.

SYMBOL	CONDITIONS	VALUE	UNIT
$\mu_i$	25 °C; $\leq 10$ kHz; 0.25 mT	2000 $\pm 20\%$	
$\mu_a$	100 °C; 25 kHz; 200 mT	$\approx 4000$	
B	25 °C; 10 kHz; 1200 A/m 100 °C; 10 kHz; 1200 A/m	$\approx 440$ $\approx 370$	mT
$P_V$	100 °C; 100 kHz; 100 mT 100 °C; 400 kHz; 50 mT	$\leq 80$ $\leq 150$	kW/m <sup>3</sup>
$\rho$	DC; 25 °C	$\approx 2$	$\Omega\text{m}$
$T_C$		$\geq 200$	°C
density		$\approx 4750$	kg/m <sup>3</sup>

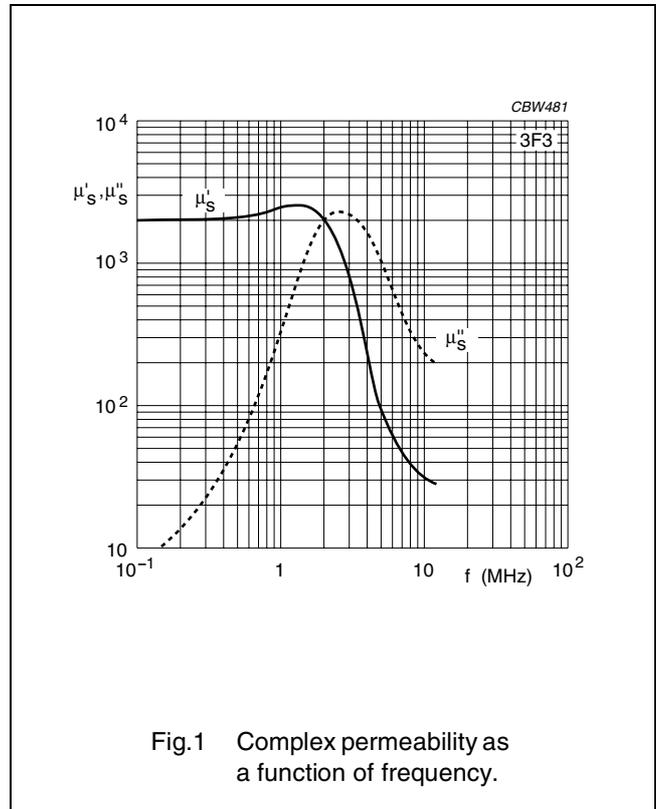


Fig.1 Complex permeability as a function of frequency.

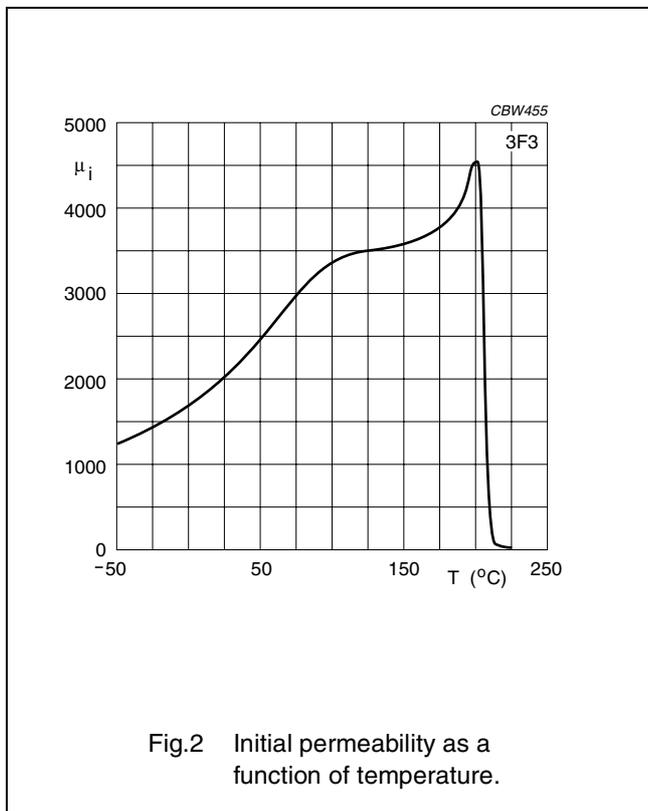


Fig.2 Initial permeability as a function of temperature.

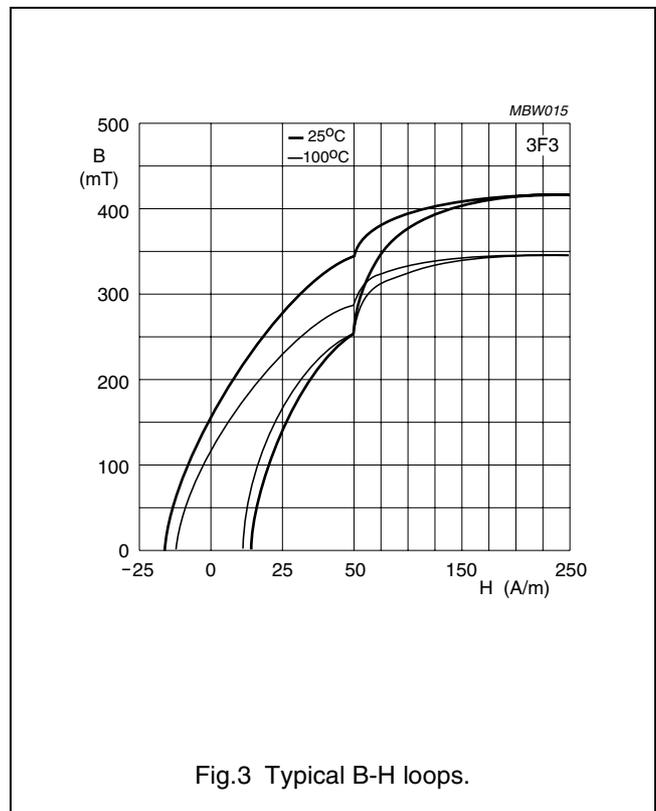
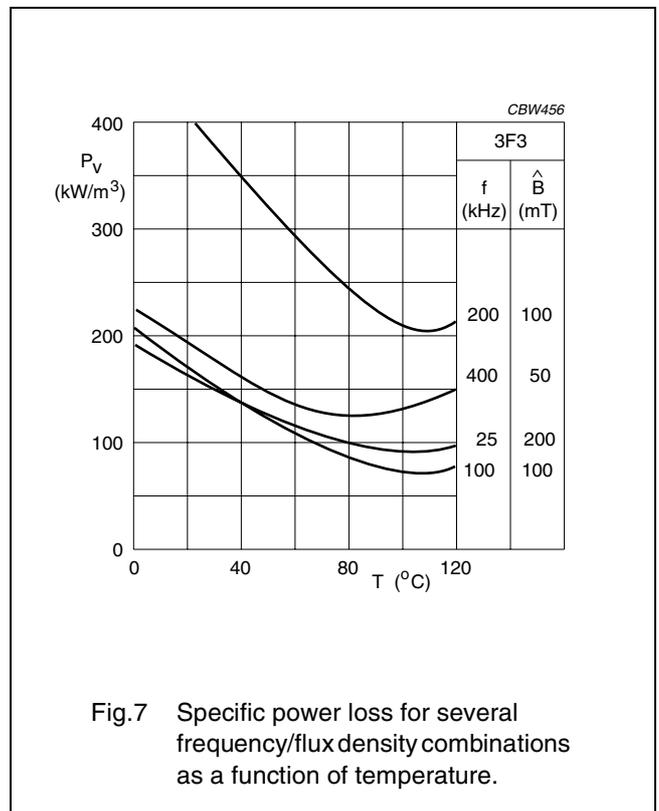
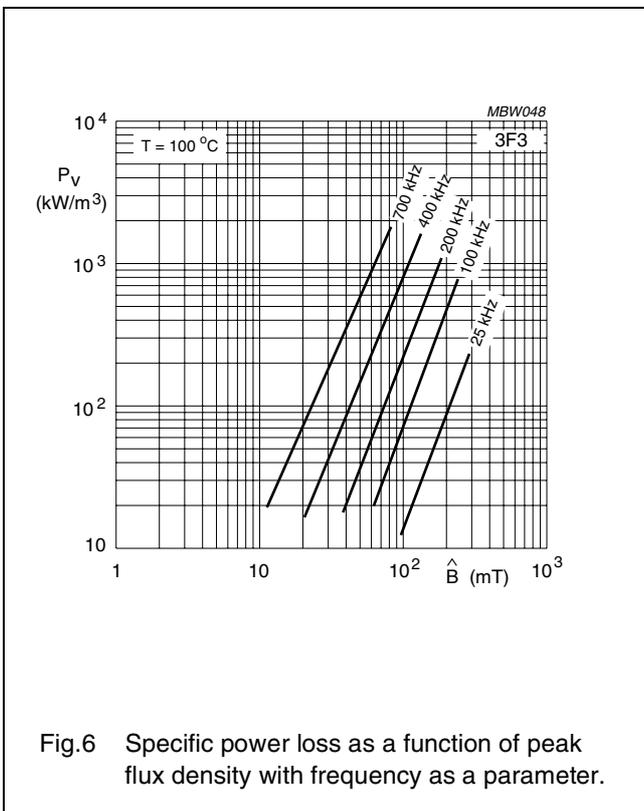
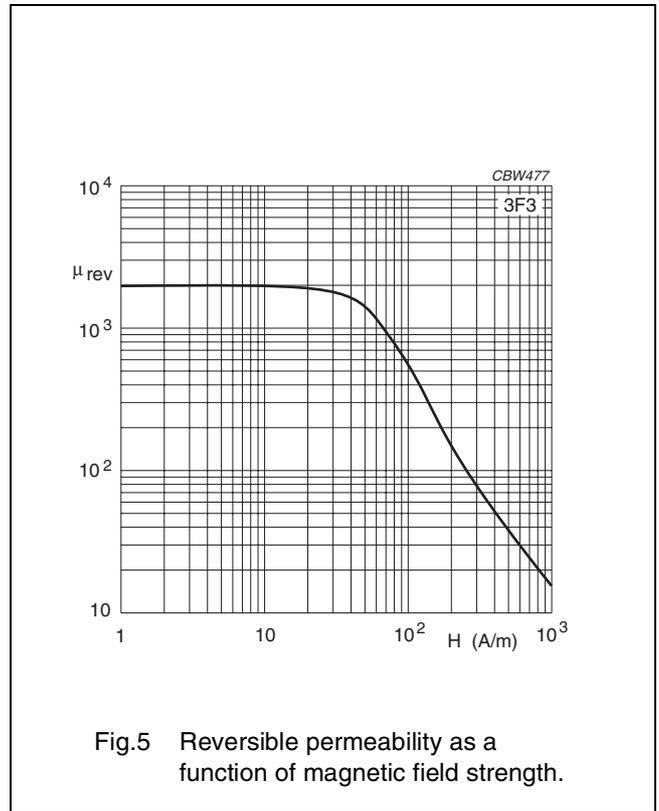
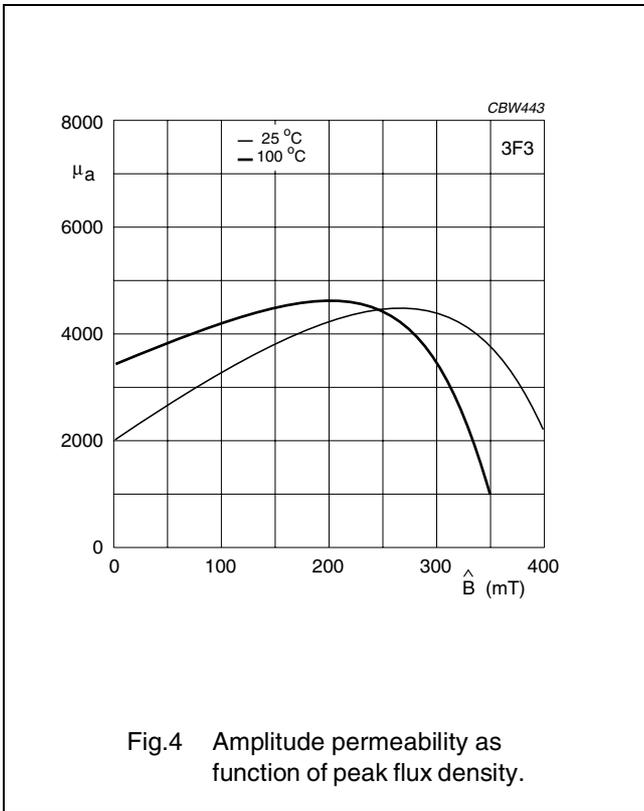


Fig.3 Typical B-H loops.



**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.
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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<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.
<b>Support</b>		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.