

# DATA SHEET

**4B2**

**Material specification**

Supersedes data of September 2004

2008 Sep 01



**FERROXCUBE**  
A YAGEO COMPANY

4B2 SPECIFICATIONS

Medium permeability NiZn ferrite for use in RF tuning, especially antenna rods in RFID transponders in automotive applications, and wideband and balun transformers.

SYMBOL	CONDITIONS	VALUE	UNIT
$\mu_i$	25 °C; $\leq 10$ kHz; 0.25 mT	$250 \pm 20$ %	
B	25 °C; 10 kHz; 3000 A/m 100 °C; 10 kHz; 3000 A/m	$\approx 360$  $\approx 310$	mT
$\tan\delta/\mu_i$	25 °C; 3 MHz; 0.25 mT	$\leq 300 \times 10^{-6}$	
$\alpha_F$	$\leq 10$ kHz; 0.25 mT; -40 to 25 °C -10 to 55 °C 0 to 25 °C 25 to 55 °C 25 to 85 °C	$(-1 \pm 4) \times 10^{-6}$ $(-1 \pm 4) \times 10^{-6}$ $(-2.5 \pm 4) \times 10^{-6}$ $(2 \pm 4) \times 10^{-6}$ $(0.5 \pm 4) \times 10^{-6}$	K <sup>-1</sup>
$\rho$	DC; 25 °C	$\approx 10^5$	$\Omega\text{m}$
$T_C$		$\geq 335$	°C
density		$\approx 4600$	kg/m <sup>3</sup>

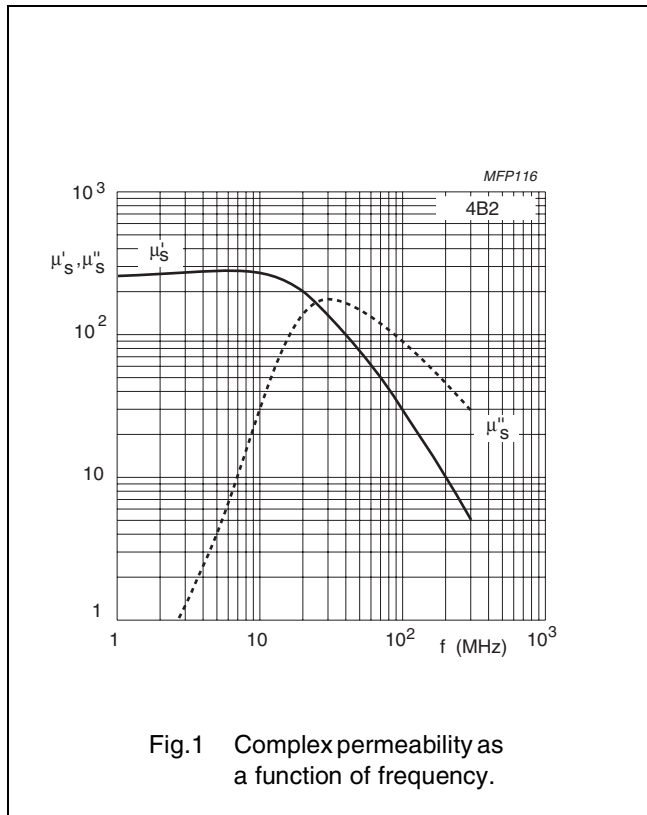


Fig. 1 Complex permeability as a function of frequency.

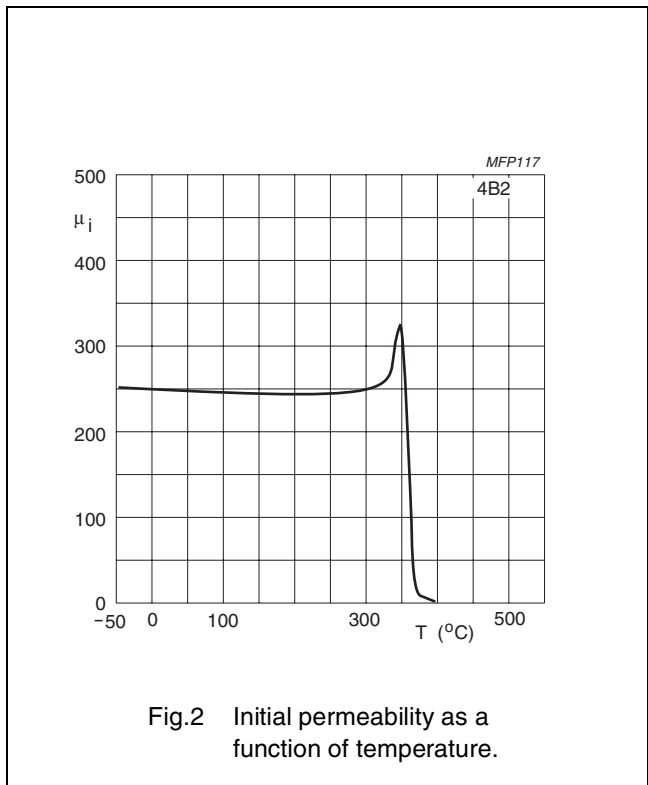


Fig. 2 Initial permeability as a function of temperature.

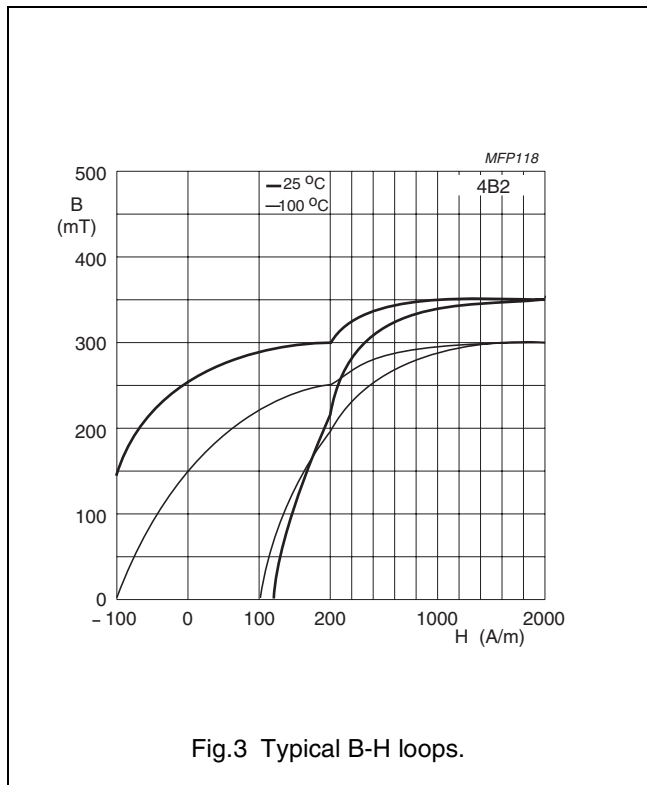


Fig. 3 Typical B-H loops.




**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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