

DATA SHEET

3E27

Material specification

Supersedes data of September 2004

2008 Sep 01



FERROXCUBE
A YAGEO COMPANY

Material specification

3E27

3E27 SPECIFICATIONS

A medium permeability material with low losses and a relatively high T_C optimized for use in wideband transformers as well as EMI-suppression filters.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	$6000 \pm 20\%$	
B	25 °C; 10 kHz; 1200 A/m 100 °C; 10 kHz; 1200 A/m	≈ 430 ≈ 270	mT
$\tan\delta/\mu_i$	25 °C; 100 kHz; 0.25 mT	$\leq 15 \times 10^{-6}$	
ρ	DC; 25 °C	≈ 0.5	Ωm
T_C		≥ 150	°C
density		≈ 4800	kg/m^3

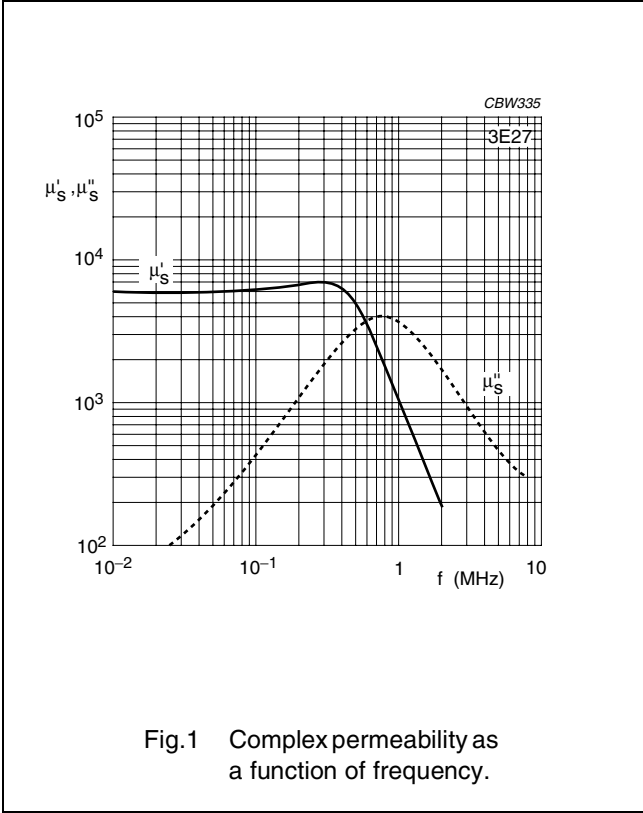


Fig.1 Complex permeability as a function of frequency.

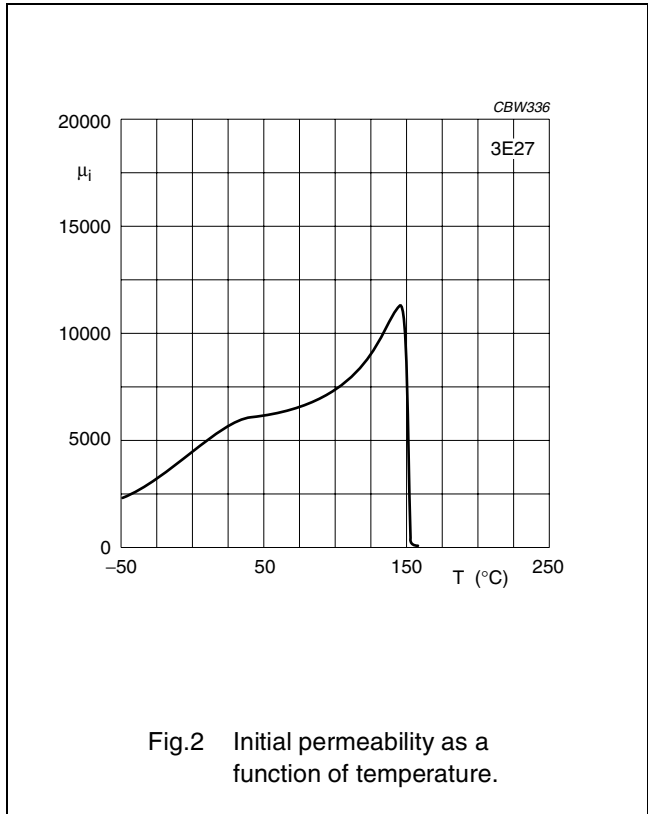


Fig.2 Initial permeability as a function of temperature.

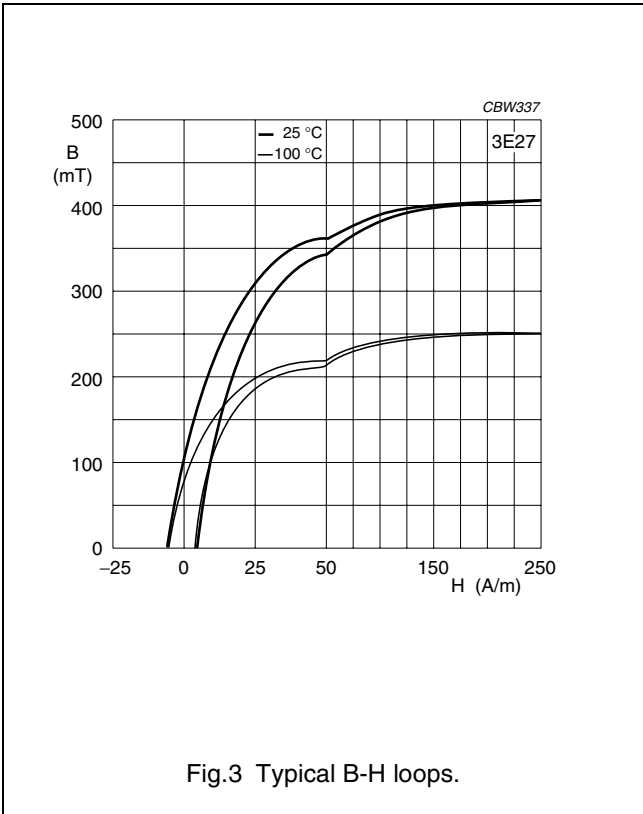
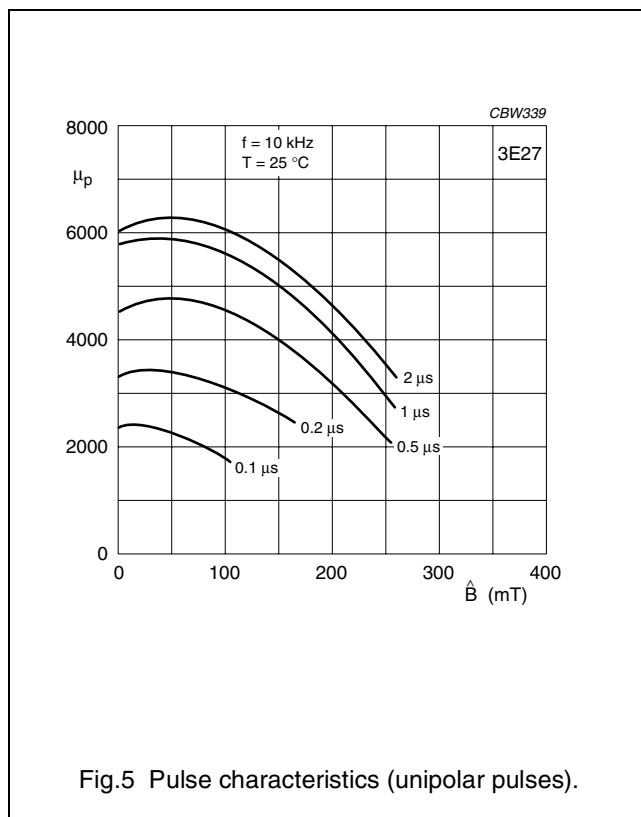
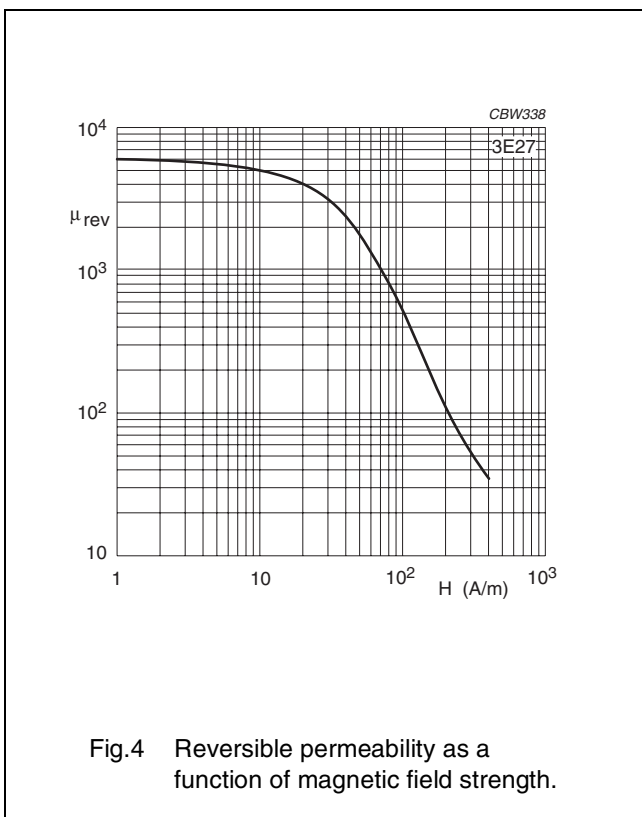


Fig.3 Typical B-H loops.






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 not recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.