

DATA SHEET

3E65

Material specification

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**FERROXCUBE**

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A YAGEO COMPANY

Material specification

3E65 SPECIFICATIONS

A medium permeability material with low losses and 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	$5200 \pm 20\%$	
B	25 °C; 10 kHz; 1200 A/m	≈ 480	mT
	100 °C; 10 kHz; 1200 A/m	≈ 320	
$\tan\delta/\mu_i$	25 °C; 100 kHz; 0.25 mT	$\leq 10 \times 10^{-6}$	
$\tan\delta/\mu_i$	25 °C; 200 kHz; 0.25 mT	$\leq 25 \times 10^{-6}$	
ρ	DC; 25 °C	≈ 0.5	Ωm
T_c		≥ 165	°C
density		≈ 4900	kg/m^3

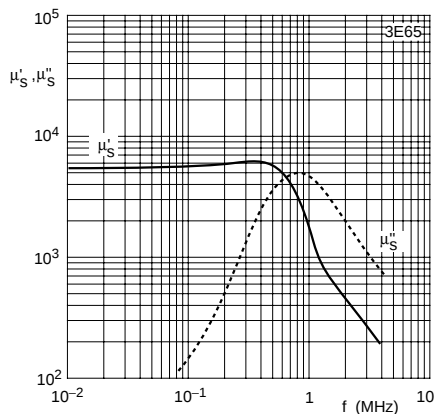


Fig.1 Complex permeability as a function of frequency.

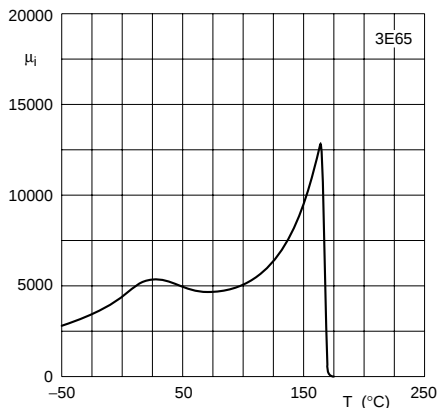


Fig.2 Initial permeability as a function of temperature.

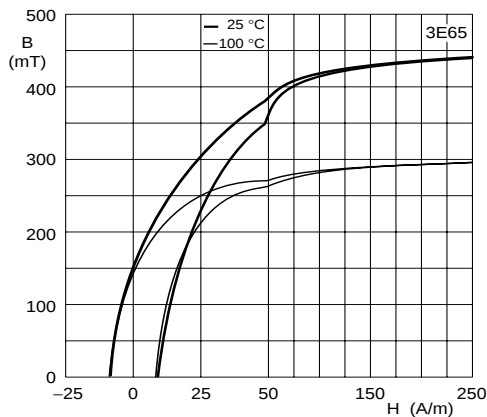


Fig.3 Typical B-H loops.

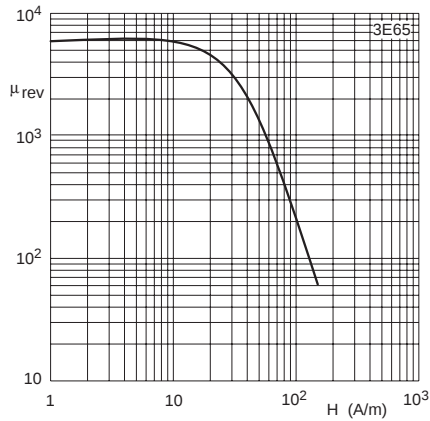
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Fig.4 Reversible permeability as a function of magnetic field strength.

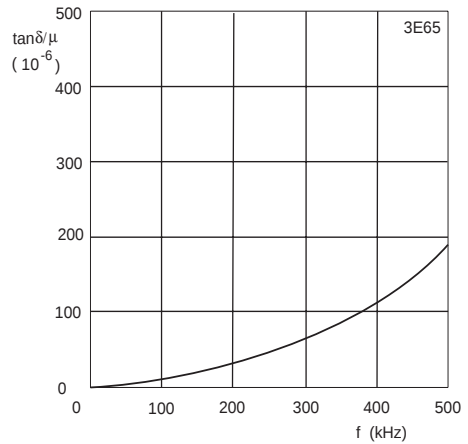


Fig.5 Loss factor as function of frequency

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.

DISCLAIMER

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype		These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
Design-in		These products are recommended for new designs.
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.