MEGATRON AG
FERROXCUBE DISTRIBUTOR FOR MAGNETIC COMPONENTS

DATA SHEET

3E10
Material specification

2013 July 05

FERROXCUBE
A YAGEO COMPANY

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3E10 SPECIFICATIONS

A high permeability material 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	10 000 ± 20%	
B	25 °C; 10 kHz; 1200 A/m	≈ 460	mT
	100 °C; 10 kHz; 1200 A/m	≈ 270	
$\tan\delta/\mu_i$	25 °C; 30 kHz; 0.25 mT	$\leq 5 \times 10^{-6}$	
	25 °C; 100 kHz; 0.25 mT	$\leq 20 \times 10^{-6}$	
η_B	25 °C; 10 kHz; 1.5 to 3 mT	$\leq 0.5 \times 10^{-3}$	T^{-1}
ρ	DC; 25 °C	≈ 0.5	Ωm
T_C		≥ 130	°C
density		≈ 5000	kg/m^3

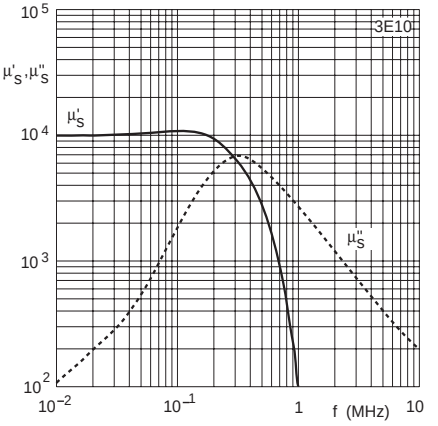

Fig.1 Complex permeability as a function of frequency.

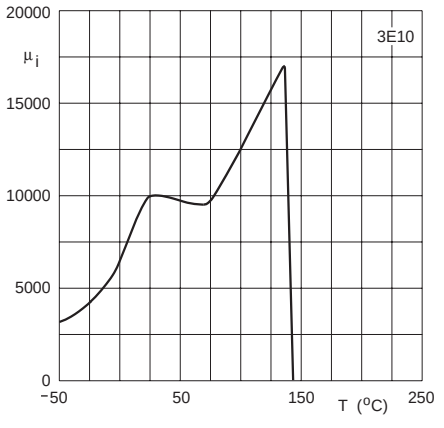

Fig.2 Initial permeability as a function of temperature.

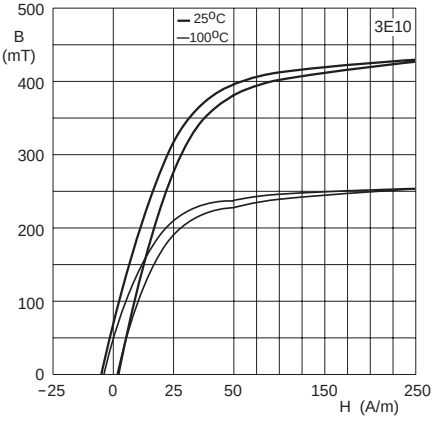

Fig.3 Typical B-H loops.

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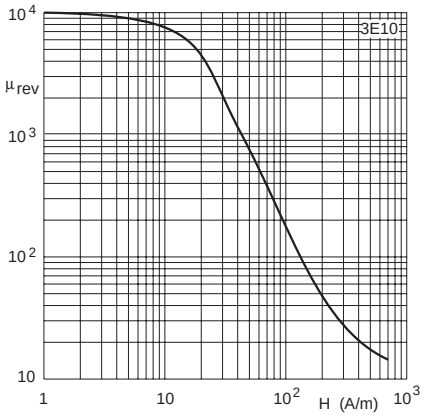

Fig.4 Reversible permeability as a function of magnetic field strength.

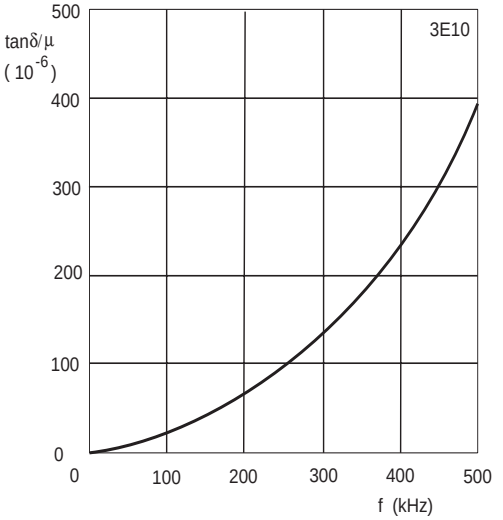

Fig.5 Loss factor in function of frequency.

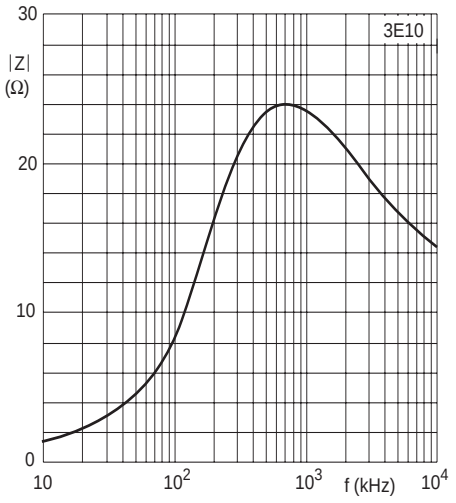

Fig.6 Impedance as a function of frequency measured on toroid T25/15/10

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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

STATUS	INDICATION	DEFINITION
Prototype	prot	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	des	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	sup	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.

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