

DATA SHEET

3C95 Material specification

New data

2008 Sep 01



FERROXCUBE
A YAGEO COMPANY

Material specification

3C95

3C95 SPECIFICATIONS

A low to medium frequency power material with low power losses from 25 to 100 °C for use in power transformers at frequencies up to 0.5 MHz. Especially suited for broad temperature range applications like automotive, lighting and mobile / handheld.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	$3000 \pm 20 \%$	
μ_a	100 °C; 25 kHz; 200 mT	≈ 5000	
B	25 °C; 10 kHz; 1200 A/m	≈ 530	mT
	100 °C; 10 kHz; 1200 A/m	≈ 410	
P_V	25 °C; 100 kHz; 200 mT	≈ 350	kW/m ³
	100 °C; 100 kHz; 200 mT	≈ 290	
ρ	DC, 25 °C	≈ 5	Ωm
T_C		≥ 215	°C
density		≈ 4800	kg/m ³

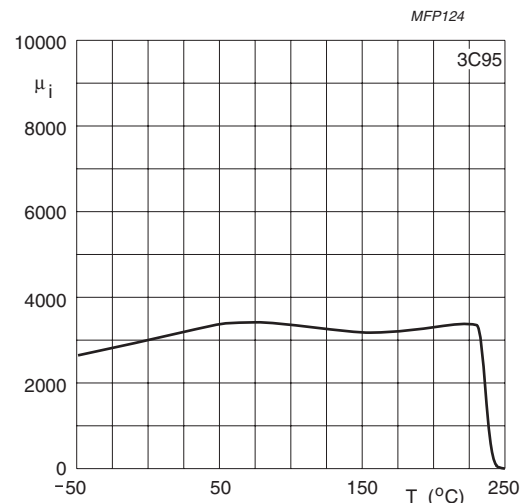


Fig.1 Initial permeability as a function of temperature.

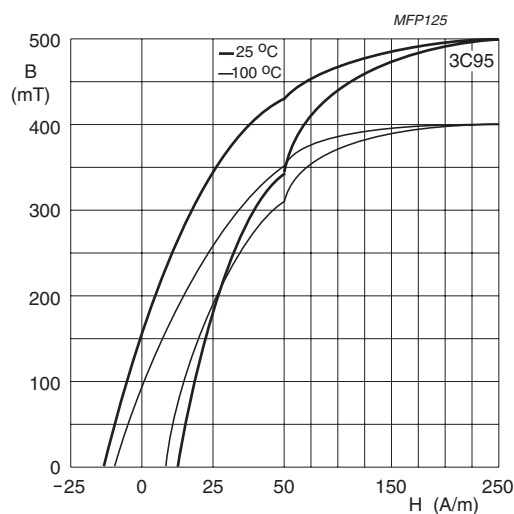


Fig.2 Typical B-H loops.

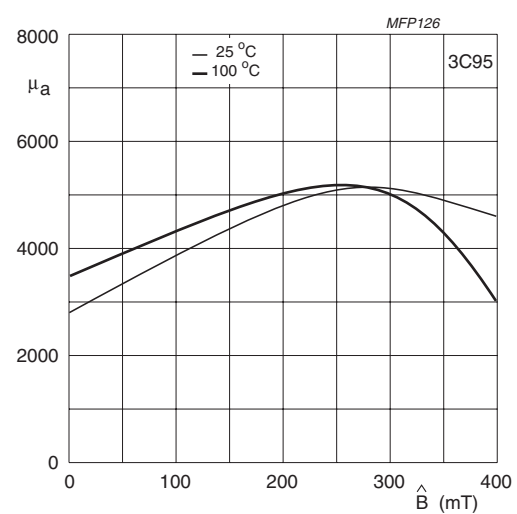


Fig.3 Amplitude permeability as a function of peak flux density.

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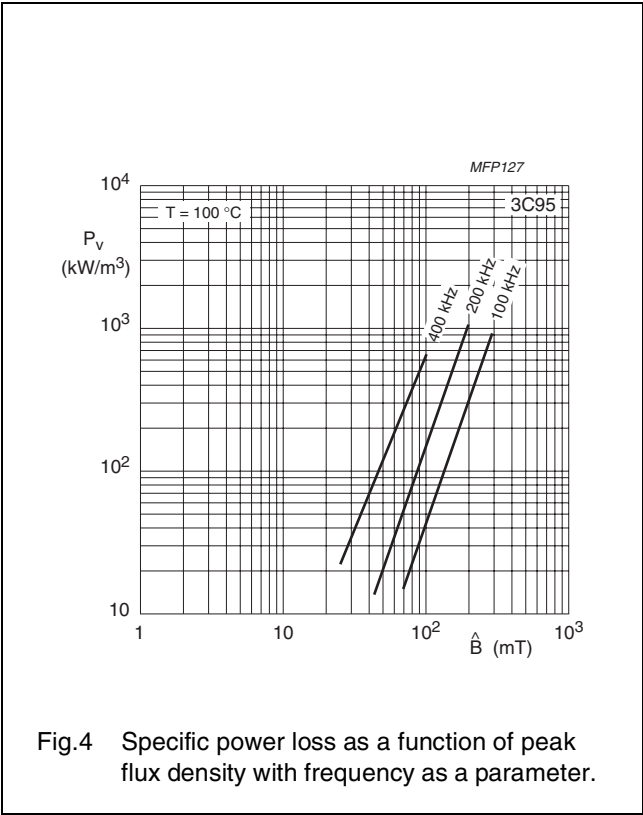


Fig.4 Specific power loss as a function of peak flux density with frequency as a parameter.

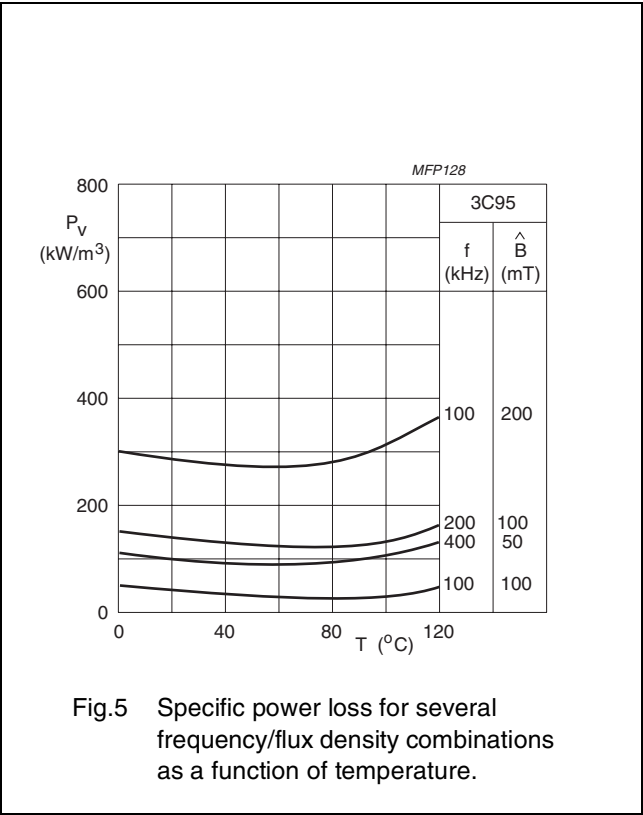


Fig.5 Specific power loss for several frequency/flux density combinations as a function of temperature.

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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.

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.