

# DATA SHEET

## **3C95** Material specification

Supersedes data of September 2008

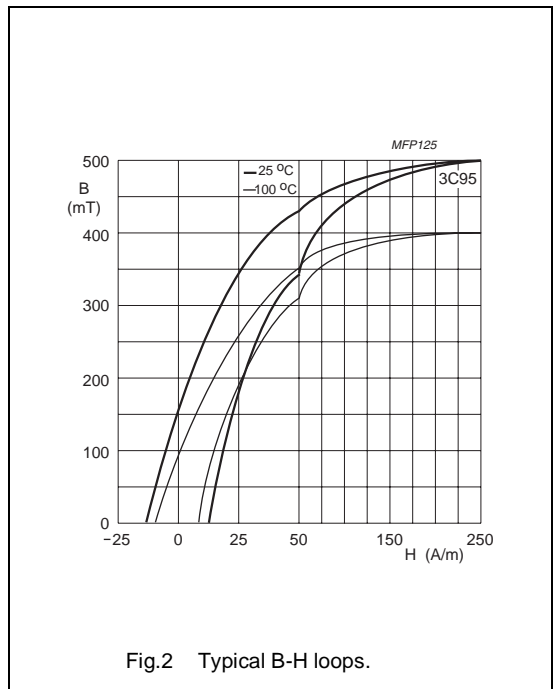
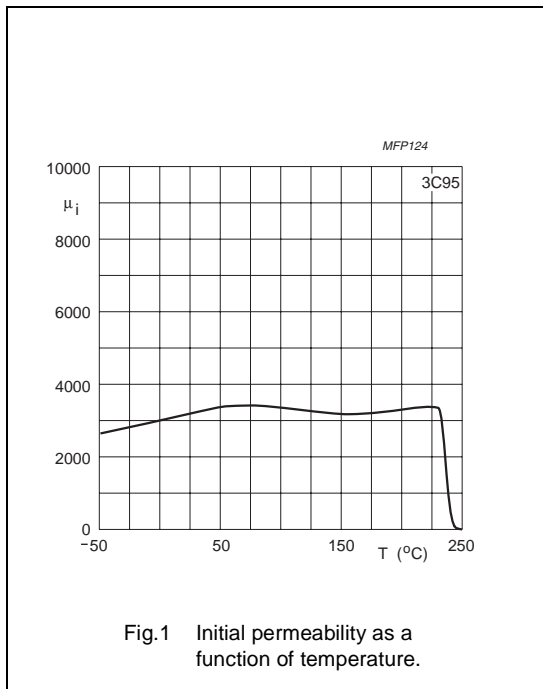
2015 October 02

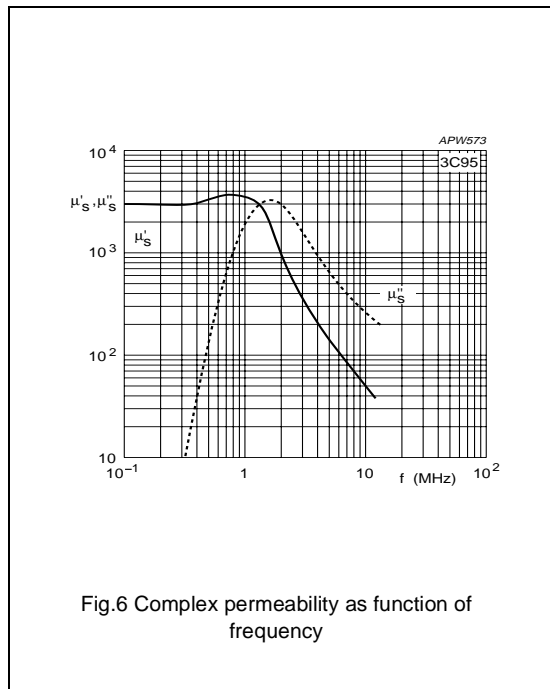
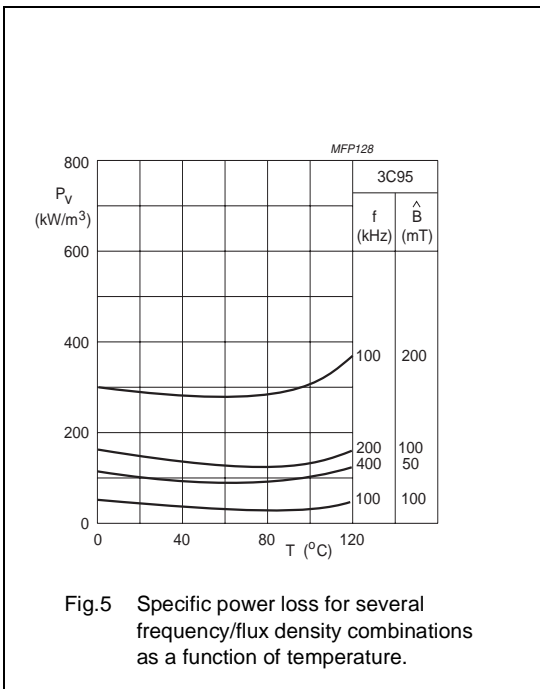
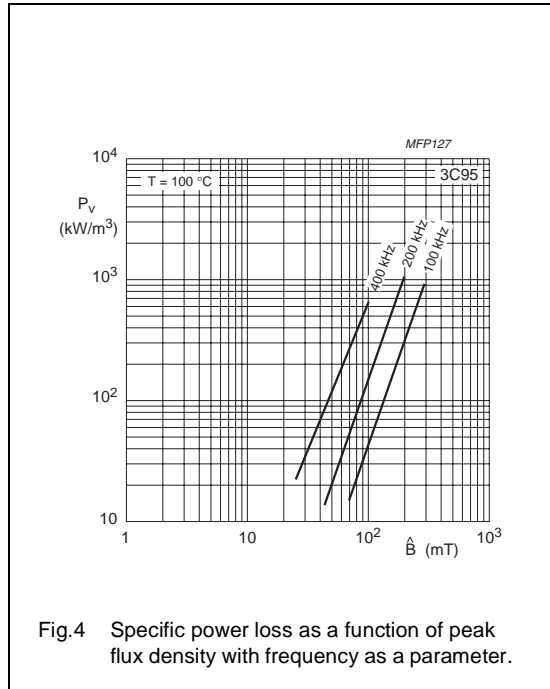
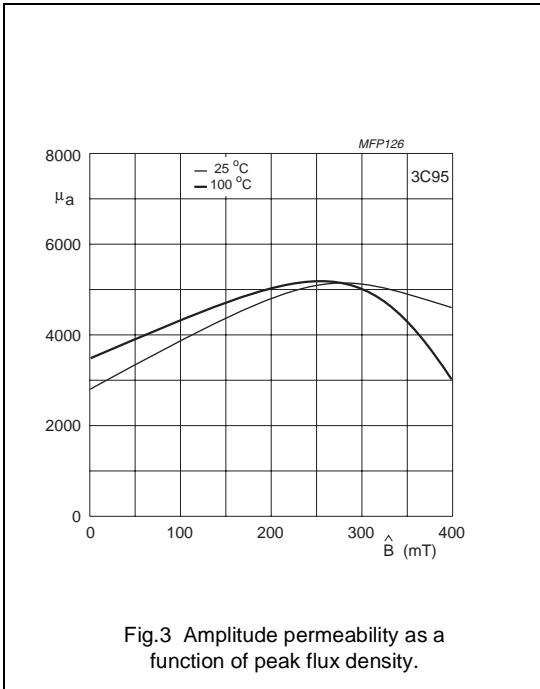
**3C95 SPECIFICATIONS**

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
$\mu_i$	25 °C; $\leq 10$ kHz; 0.25 mT	$3000 \pm 20 \%$	
$\mu_a$	100 °C; 25 kHz; 200 mT	$\approx 5000$	
B	25 °C; 10 kHz; 1200 A/m 100 °C; 10 kHz; 1200 A/m	$\approx 530$ $\approx 410$	mT
$P_V$	25 °C; 100 kHz; 200 mT 100 °C; 100 kHz; 200 mT	$\approx 350$ $\approx 290$	kW/m <sup>3</sup>
$\rho$	DC, 25 °C	$\approx 5$	$\Omega\text{m}$
$T_C$		$\geq 215$	°C

SYMBOL	CONDITIONS	VALUE	UNIT
$\alpha_F$	$\leq 10$ kHz; 0.25 mT; -40 to 25 °C	$1 \pm 2 \times 10^{-6}$	K <sup>-1</sup>
	$\leq 10$ kHz; 0.25 mT; -10 to 55 °C	$1.5 \pm 2 \times 10^{-6}$	K <sup>-1</sup>
	$\leq 10$ kHz; 0.25 mT; 0 to 25 °C	$1.5 \pm 2 \times 10^{-6}$	K <sup>-1</sup>
	$\leq 10$ kHz; 0.25 mT; 25 to 55 °C	$1.5 \pm 2 \times 10^{-6}$	K <sup>-1</sup>
	$\leq 10$ kHz; 0.25 mT; 25 to 55 °C	$1.5 \pm 2 \times 10^{-6}$	K <sup>-1</sup>
$D_F$	25 °C; 10 kHz; 0.25 mT	$\leq 8 \times 10^{-6}$	
density		$\approx 4800$	kg/m <sup>3</sup>








**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
<b>Prototype</b>		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.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
<b>Support</b>		These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.