

DATA SHEET

3C81 Material specification

Supersedes data of September 2004

2008 Sep 01

Material specification

3C81

3C81 SPECIFICATIONS

A low frequency power material with minimum power losses around 60 °C for use in power and general purpose transformers at frequencies up to 0.2 MHz.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	2700 $\pm 20\%$	
μ_a	100 °C; 25 kHz; 200 mT	5500 $\pm 20\%$	
B	25 °C; 10 kHz; 1200 A/m 100 °C; 10 kHz; 1200 A/m	≈ 450 ≈ 360	mT
P_V	100 °C; 25 kHz; 200 mT	≤ 185	kW/m ³
ρ	DC; 25 °C	≈ 1	Ωm
T_C		≥ 210	°C
density		≈ 4800	kg/m ³

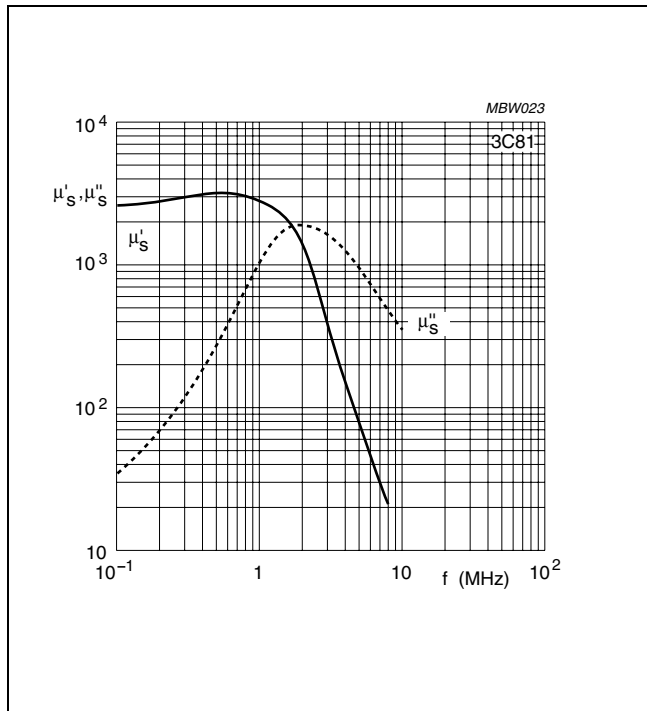


Fig.1 Complex permeability as a function of frequency.

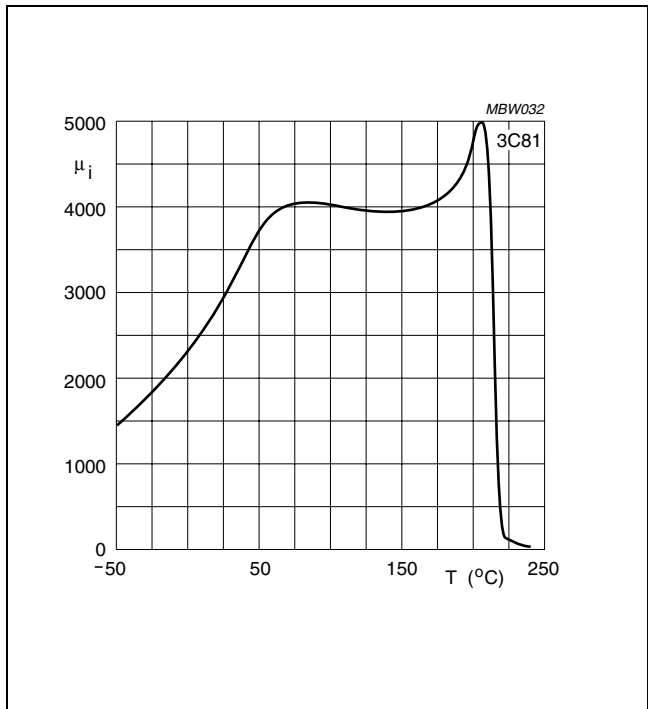


Fig.2 Initial permeability as a function of temperature.

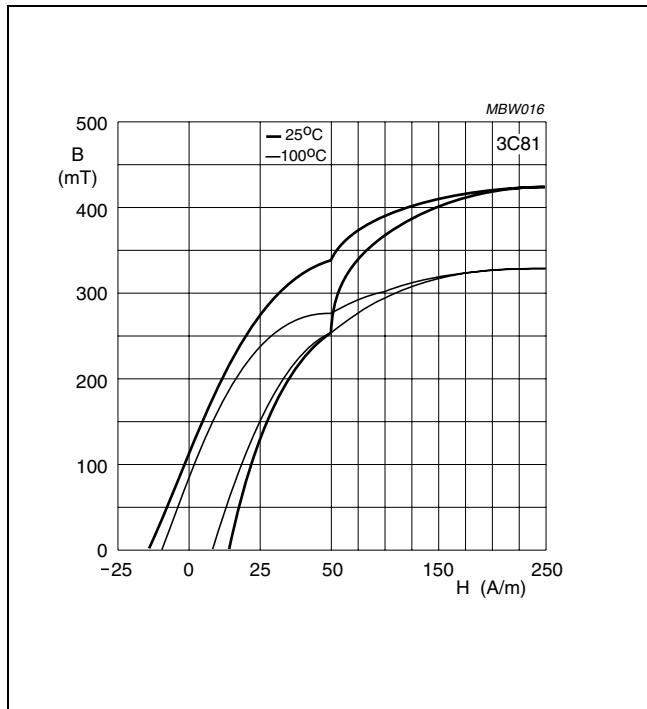
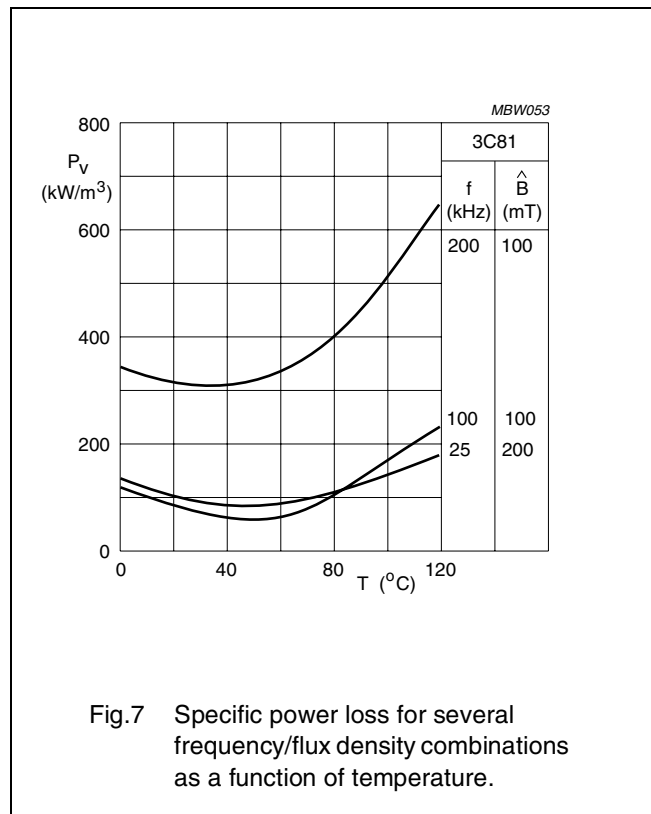
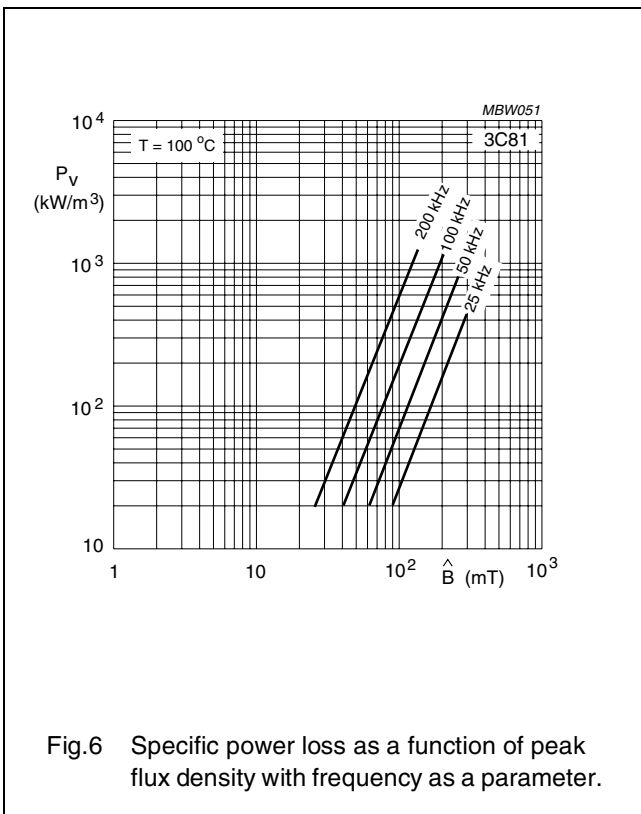
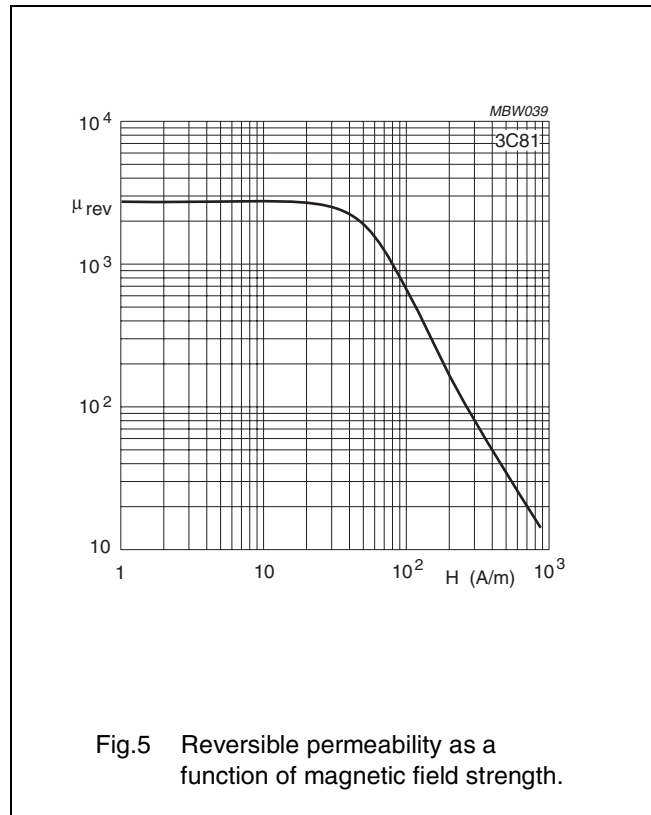
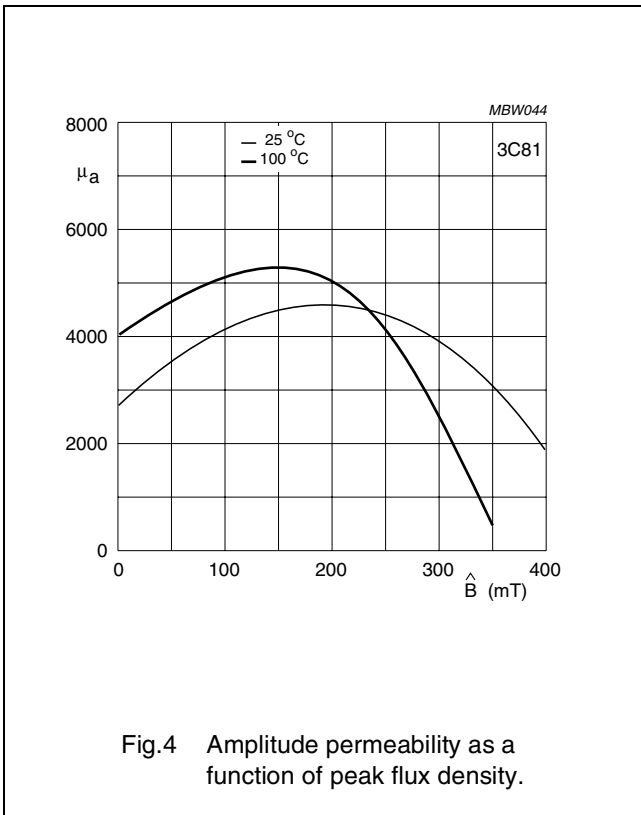


Fig.3 Typical B-H loops.






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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Preferred		These products are recommended for use in current designs and are available via our sales channels.
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