MEGATRON AG
FERROXCUBE DISTRIBUTOR FOR MAGNETIC COMPONENTS

DATA SHEET

3S4
Material specification

Supersedes data of September 2004

2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

Megatron AG - Wölferstrasse 5, 4414 Füllinsdorf, Switzerland | +41 55 617 00 88 |
sales@megatron.ch

Material specification 3S4

3S4 SPECIFICATIONS

Wideband EMI-suppression material specified on impedance and optimized for frequencies from 10 to 300 MHz.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤10 kHz; 0.25 mT	≈ 1700	
B	25 °C; 10 kHz; 1200 A/m	≈ 320	mT
	100 °C; 10 kHz; 1200 A/m	≈ 170	
$\|Z\|$ (1)	25 °C; 3 MHz	≥ 25	Ω
	25 °C; 30 MHz	≥ 60	
	25 °C; 100 MHz	≥ 80	
	25 °C; 300 MHz	≥ 90	
ρ	DC; 25 °C	≈ 10^3	Ωm
T_C		≥ 110	°C
density		≈ 4800	kg/m^3

Note

1. Measured on a bead ∅5× ∅2 × 10 mm.

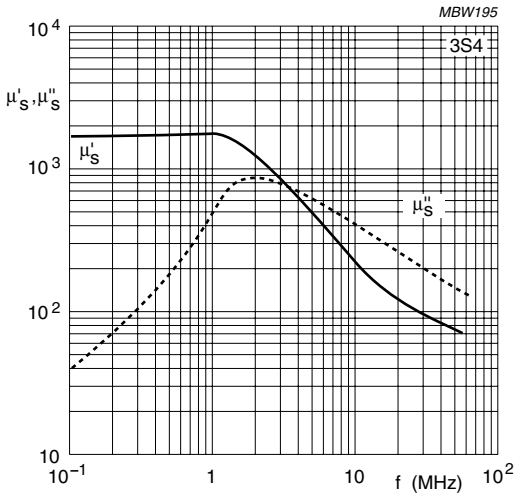

Fig.1 Complex permeability as a function of frequency.

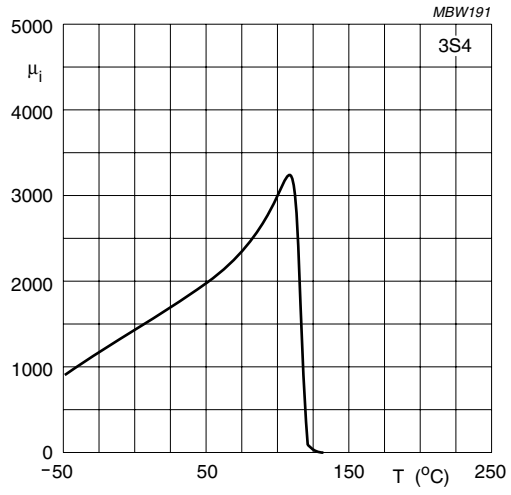

Fig.2 Initial permeability as a function of temperature.

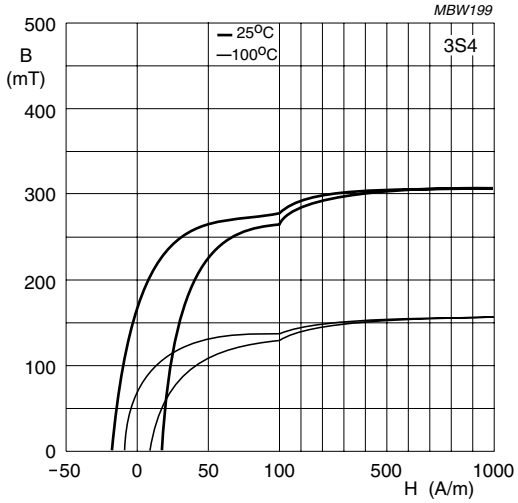

Fig.3 Typical B-H loops.

Megatron AG - Wölferstrasse 5, 4414 Füllinsdorf, Switzerland | +41 55 617 00 88 |
sales@megatron.ch

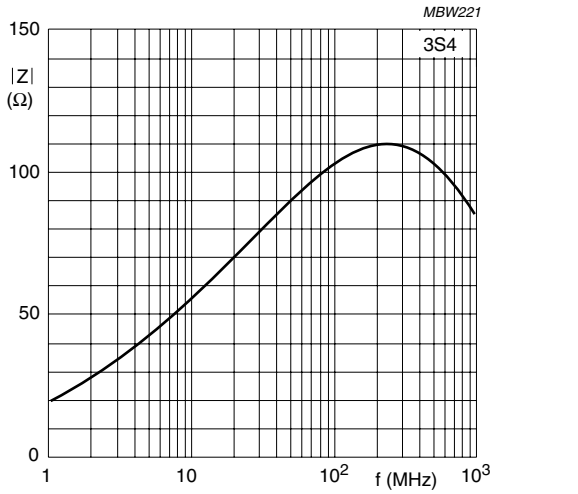

Fig.4 Impedance as a function of frequency measured on a bead ∅5 × ∅2 × 10 mm.

Megatron AG - Wölferstrasse 5, 4414 Füllinsdorf, Switzerland | +41 55 617 00 88 |
sales@megatron.ch

Material specification 3S4

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

Life support applications — These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.

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.

Megatron AG - Wölferstrasse 5, 4414 Füllinsdorf, Switzerland | +41 55 617 00 88 |
sales@megatron.ch