

Material specification

4B2

4B2 SPECIFICATIONS

Medium permeability NiZn ferrite for use in RF tuning, especially antenna rods in RFID transponders in automotive applications, and wideband and balun transformers.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤ 10 kHz; 0.25 mT	$250 \pm 20 \%$	
B	25 °C; 10 kHz; 3000 A/m 100 °C; 10 kHz; 3000 A/m	≈ 360 ≈ 310	mT
$\tan\delta/\mu_i$	25 °C; 3 MHz; 0.25 mT	$\leq 300 \times 10^{-6}$	
α_F	≤ 10 kHz; 0.25 mT; -40 to 25 °C -10 to 55 °C 0 to 25 °C 25 to 55 °C 25 to 85 °C	$(-1 \pm 4) \times 10^{-6}$ $(-1 \pm 4) \times 10^{-6}$ $(-2.5 \pm 4) \times 10^{-6}$ $(2 \pm 4) \times 10^{-6}$ $(0.5 \pm 4) \times 10^{-6}$	K ⁻¹
ρ	DC; 25 °C	$\approx 10^5$	Ωm
T_C		≥ 335	°C
density		≈ 4600	kg/m ³

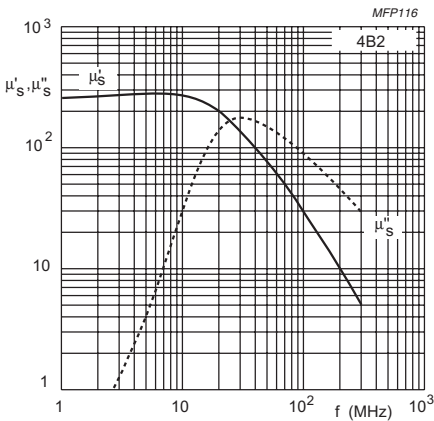


Fig.1 Complex permeability as a function of frequency.

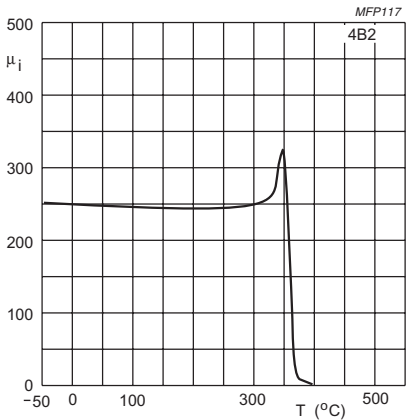


Fig.2 Initial permeability as a function of temperature.

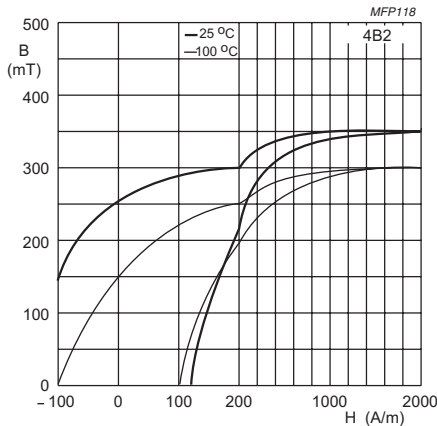


Fig.3 Typical B-H loops.