3F3 SPECIFICATIONS

A medium frequency power material for use in power and general purpose transformers at frequencies of 0.2 - 0.5 MHz.

SYMBOL	CONDITIONS	VALUE	UNIT
μ_i	25 °C; ≤10 kHz; 0.25 mT	2000 ±20%	
μ_a	100 °C; 25 kHz; 200 mT	≈ 4000	
B	25 °C; 10 kHz; 1200 A/m	≈ 440	mT
	100 °C; 10 kHz; 1200 A/m	≈ 370	
P_V	100 °C; 100 kHz; 100 mT	≤80	kW/m^3
	100 °C; 400 kHz; 50 mT	≤150	
ρ	DC; 25 °C	≈ 2	Ωm
T_C		≥200	°C
density		≈ 4750	kg/m^3

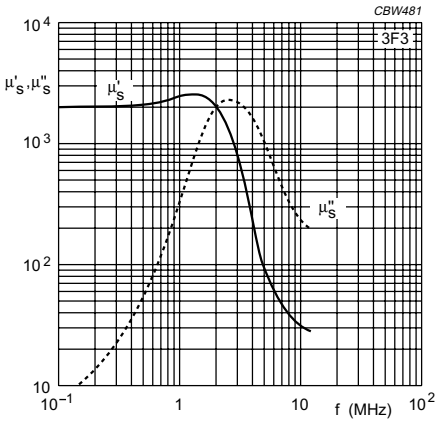

Fig.1 Complex permeability as a function of frequency.

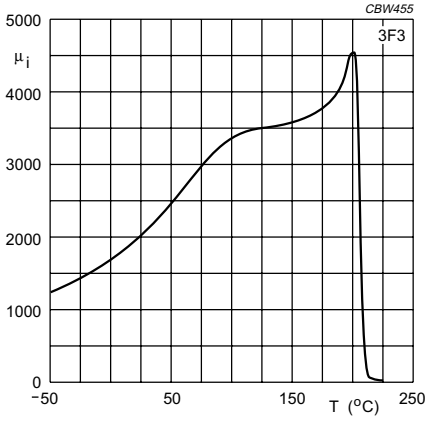

Fig.2 Initial permeability as a function of temperature.

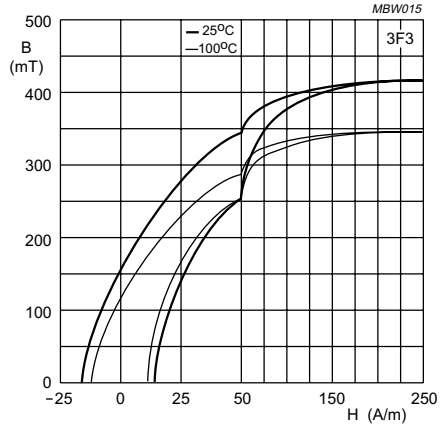

Fig.3 Typical B-H loops.

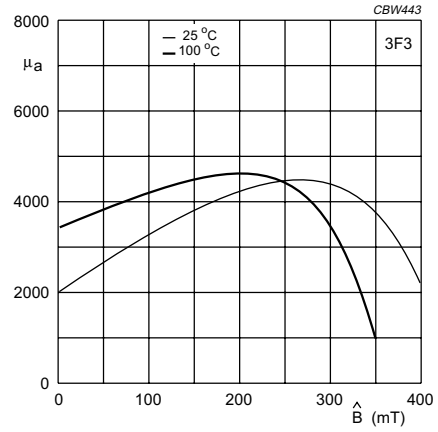

Fig.4 Amplitude permeability as function of peak flux density.

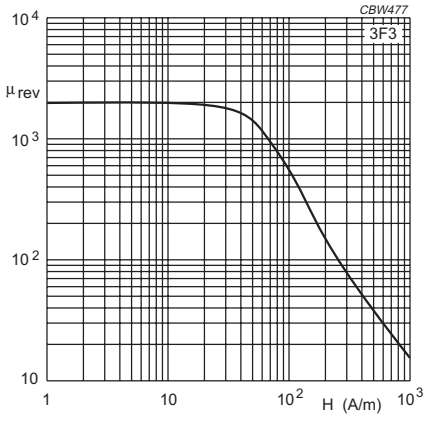

Fig.5 Reversible permeability as a function of magnetic field strength.

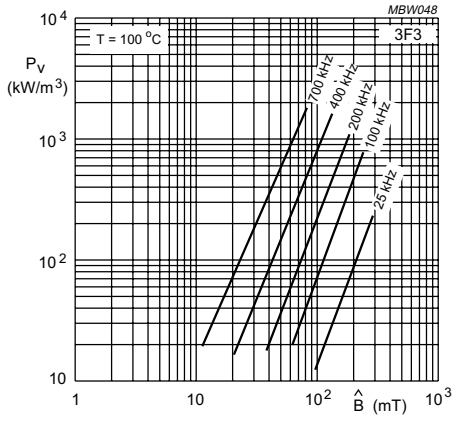

Fig.6 Specific power loss as a function of peak flux density with frequency as a parameter.

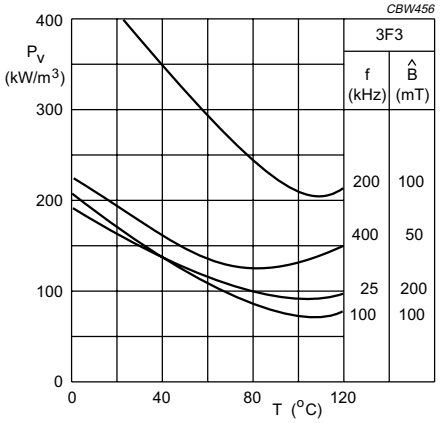

Fig.7 Specific power loss for several frequency/flux density combinations as a function of temperature.