F9C

Material Type: Manganese-Zinc Ferrite

Properties:
*High permeability
*High saturation
*Improved frequency response (depending on application)
*High Curie temperature

Frequency range: Depends on application

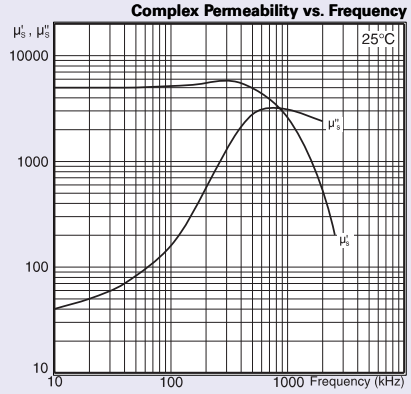
Typical Applications: Specially developed for Mains filtering, Wideband and Pulse Transformers

Available core shapes: Ring, E, RM & Pot Cores.

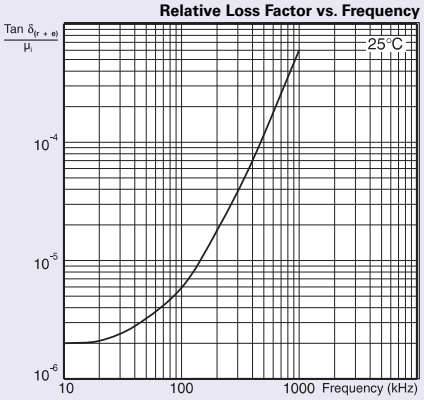
Material Specification

Parameter	Symbol	Standard Conditions of test	Unit	F9C
Initial Permeability *(nominal)*	-	B<0.1mT 10kHz 25°C	-	**5000** *±20%*
Saturation Flux Density *(typical)*	B_{sat}	H=796 A/m = 10 Oe 25°C	mT	**460**
Remanent Flux Density *(typical)*	B_r	H→ 0 (from near Saturation) 10kHz 25°C	mT	**170**
Coercivity *(typical)*	H_c	B→ 0 (from near Saturation) 10kHz 25°C	A/m	**13**
Loss Factor *(maximum)*	$\frac{\tan \delta_{(r+e)}}{\mu_i}$	B<0.10mT 10kHz 25°C	10^{-6}	**20**
Curie Temperature *(minimum)*	Θ_C	B<0.10mT 10kHz	°C	**160**
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2.\Delta T}$	+25°C to +55°C B<0.10mT 10kHz	°C	**-1 to +2**
Resistivity *(typical)*	ρ	1 V/cm 25°C	ohm-cm	**50**

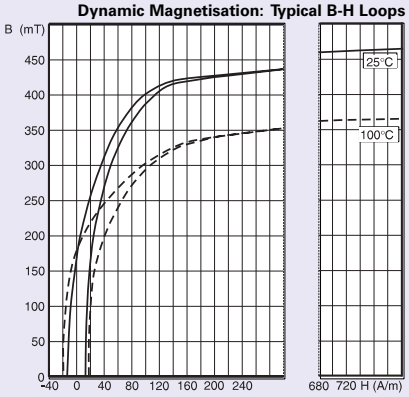
Complex Permeability vs. Frequency



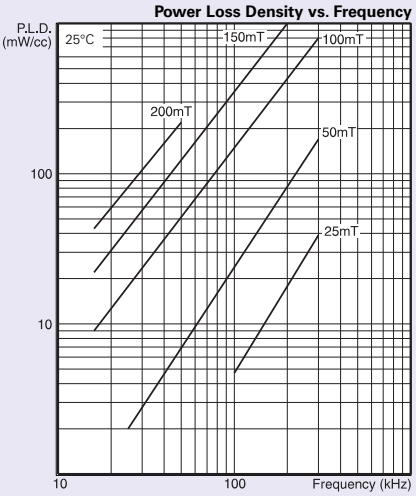
Relative Loss Factor vs. Frequency



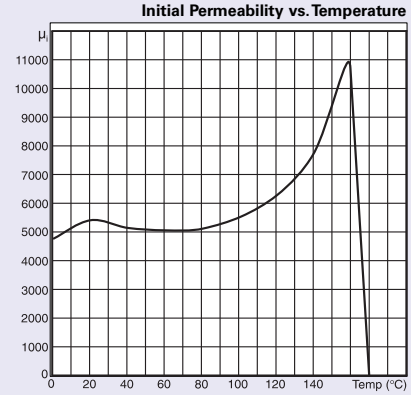
Dynamic Magnetisation: Typical B-H Loops



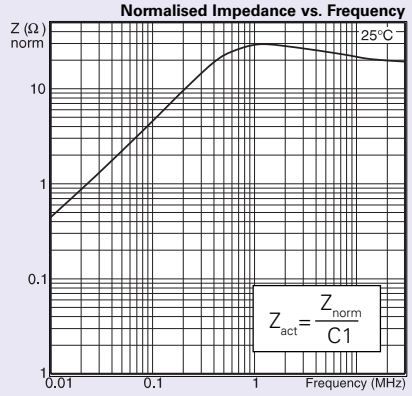
Power Loss Density vs. Frequency



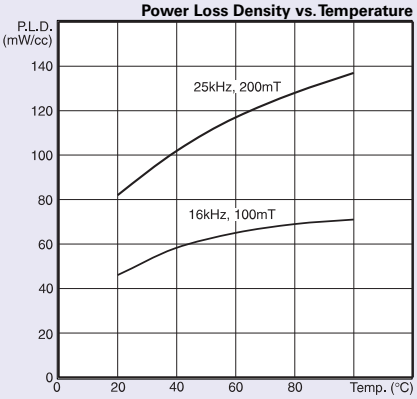
Initial Permeability vs. Temperature



Normalised Impedance vs. Frequency



Power Loss Density vs. Temperature



Data is derived from measurements on a ring core of 30mm outside diameter.