F16 Special Grade

Material Type: Nickel-Zinc Ferrite

Properties: Low loss factors at high frequency

Frequency range: 500kHz-10MHz
(Subject to application)

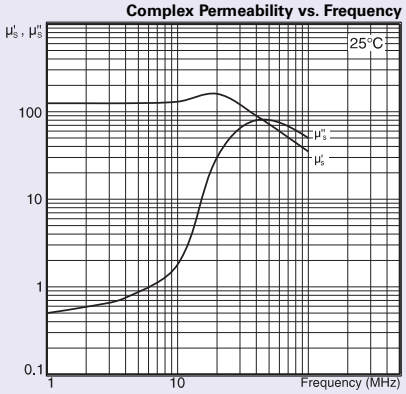
Typical Applications: Aerial rods and tuned circuits.

Available core shapes: On request.

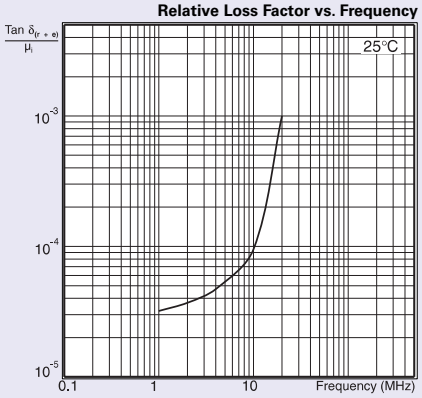
Material Specification

Parameter	Symbol	Standard Conditions of test	Unit	F16
Initial Permeability *(nominal)*	-	B<0.1mT 10kHz 25°C	-	**125** *±20%*
Saturation Flux Density *(typical)*	B_{sat}	H=796 A/m = 10 Oe 25°C	mT	**340**
Remanent Flux Density *(typical)*	B_r	H→ 0 (from near Saturation) 10kHz 25°C	mT	**260**
Coercivity *(typical)*	H_c	B→ 0 (from near Saturation) 10kHz 25°C	A/m	**200**
Loss Factor *(maximum)*	$\frac{\tan\delta_{(r+e)}}{\mu_i}$	B<0.10mT 1MHz 5MHz 25°c 10MHz	10^{-6}	**60** **65** **100**
Curie Temperature *(minimum)*	Θ_C	B<0.10mT 10kHz	°C	**270**
Temperature Factor	$\frac{\Delta\mu}{\mu_i^2.\Delta T}$	+25°C to +55°C B<0.10mT 10kHz	°C	**20 to 50**
Resistivity *(typical)*	ρ	1 V/cm 25°C	ohm-cm	**10^5**

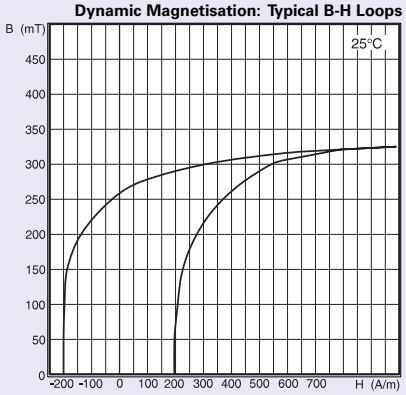
Complex Permeability vs. Frequency



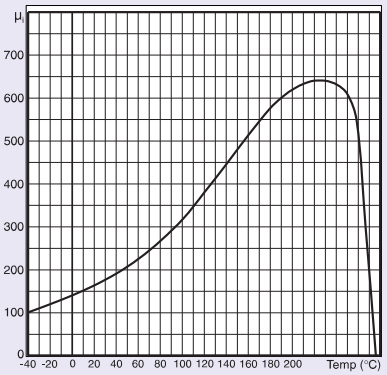
Relative Loss Factor vs. Frequency



Dynamic Magnetisation: Typical B-H Loops



Initial Permeability vs. Temperature



Data is derived from measurements on a ring core of 145x3.8x12mm (ODxIDxHT)