

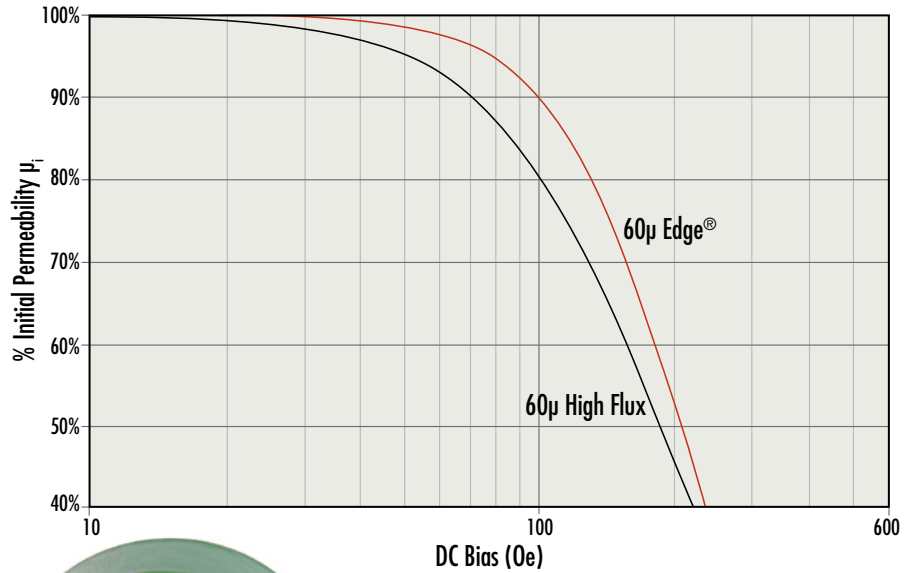


Edge[®] Powder Cores

Designed for cutting edge performance, Edge[®] cores offer the highest efficiency and best DC bias performance of all alloy powder cores. When compared with High Flux, Edge displays approximately 40% lower losses and 30% improvement in DC bias. Edge is the choice material for telecom servers or high density rack mount power supplies.

Available in 14, 19, 26, 40, 60, 75, 90 and 125 permeabilities.

Permeability vs. DC Bias

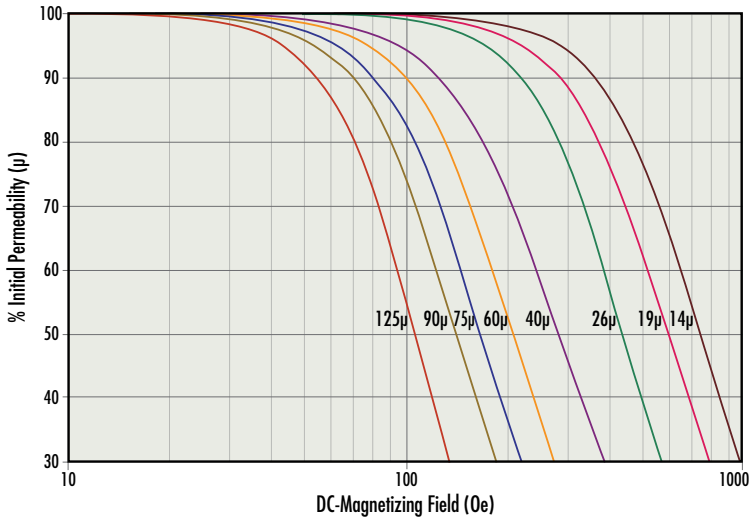


Material	Alloy Composition	DC Bias	Core Loss	Relative Cost	Saturation Flux Density (Tesla)	Curie Temperature	60μ Maximum Usable Frequency
Edge	FeNi	Highest	Very Low	High	1.5	500°C	20 MHz
High Flux	FeNi	High	Moderate	High	1.5	500°C	3 MHz
XFlux [®]	FeSi	High	High	Low	1.6	700°C	1.5 MHz
Kool Mμ [®] MAX	FeSiAl	Moderate	Low	Medium	1.0	500°C	15 MHz
Kool Mμ [®] Hf	FeSiAl	Moderate	Lowest	Medium	1.0	500°C	30 MHz
MPP	FeNiMo	Moderate	Very Low	Highest	0.8	460°C	6 MHz
Kool Mμ [®]	FeSiAl	Moderate	Low	Lowest	1.0	500°C	5 MHz

Permeability vs. DC Bias

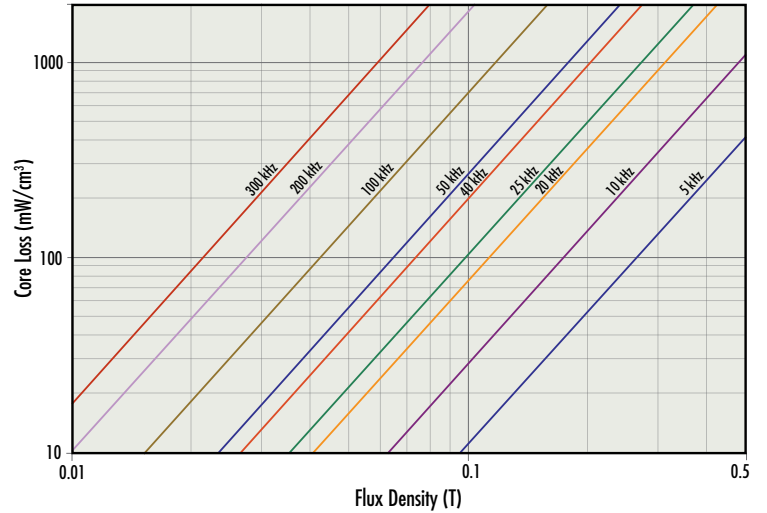
	a	b	c
14μ	0.01	1.17E-11	3.106
19μ	0.01	6.39E-11	2.950
26μ	0.01	3.65E-11	3.192
40μ	0.01	2.59E-09	2.683
60μ	0.01	9.20E-10	3.044
75μ	0.01	1.58E-09	3.067
90μ	0.01	1.85E-09	3.138
125μ	0.01	1.23E-09	3.419

$$\frac{\mu}{\mu_i} \times 100 = \frac{1}{(a + bH^2)}$$



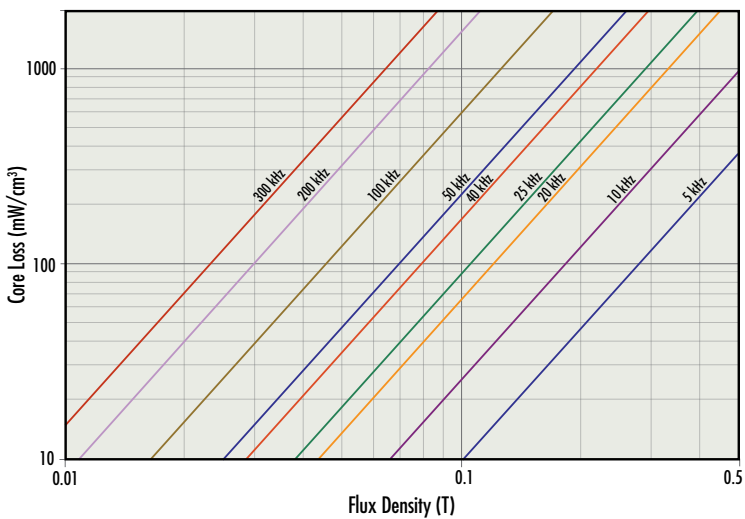
14μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
14μ	212.96	2.263	1.390



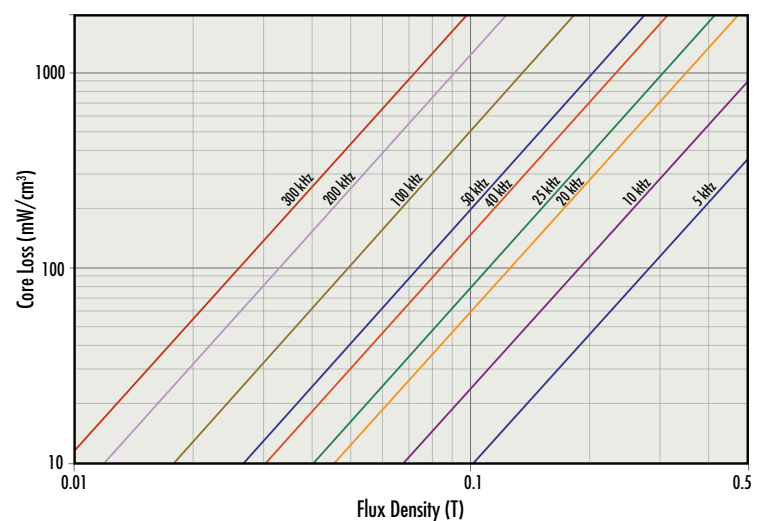
19μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
19μ	200.53	2.263	1.369



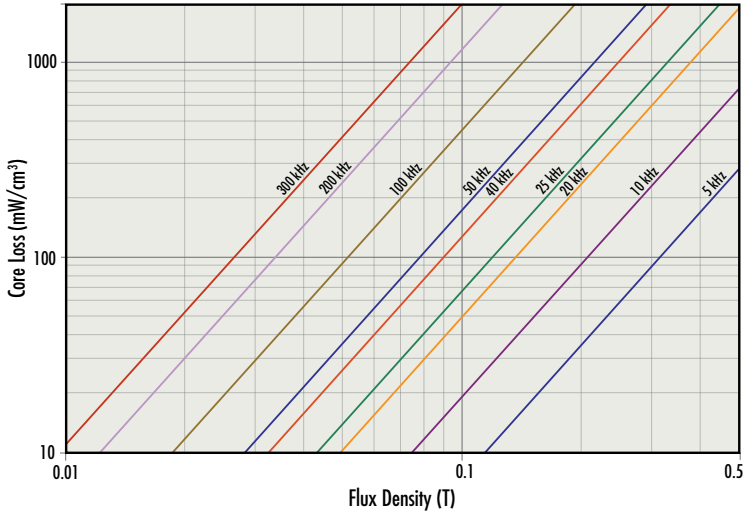
26μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
26μ	207.90	2.263	1.322



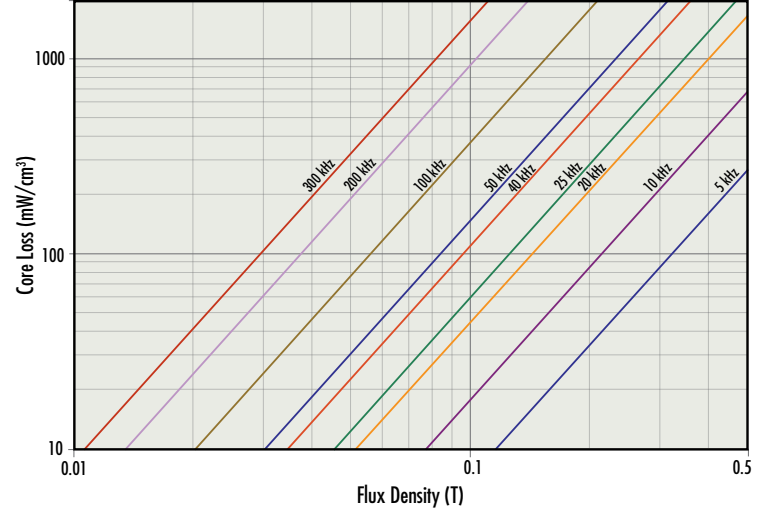
40μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
40μ	150.40	2.263	1.369



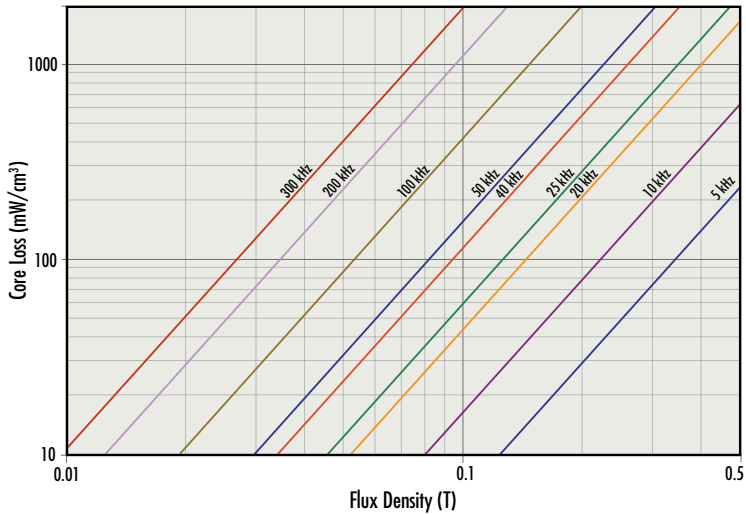
60μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
60μ	156.18	2.263	1.321



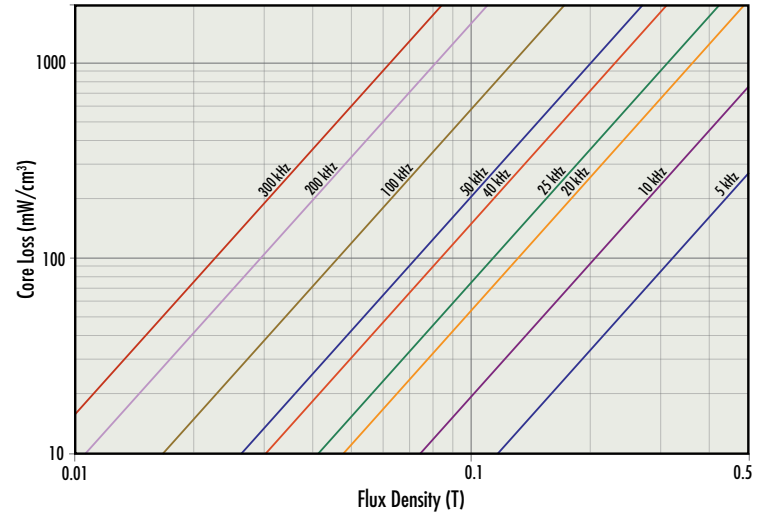
75μ Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
75μ	121.47	2.263	1.403



90μ & 125μ Core Loss Density

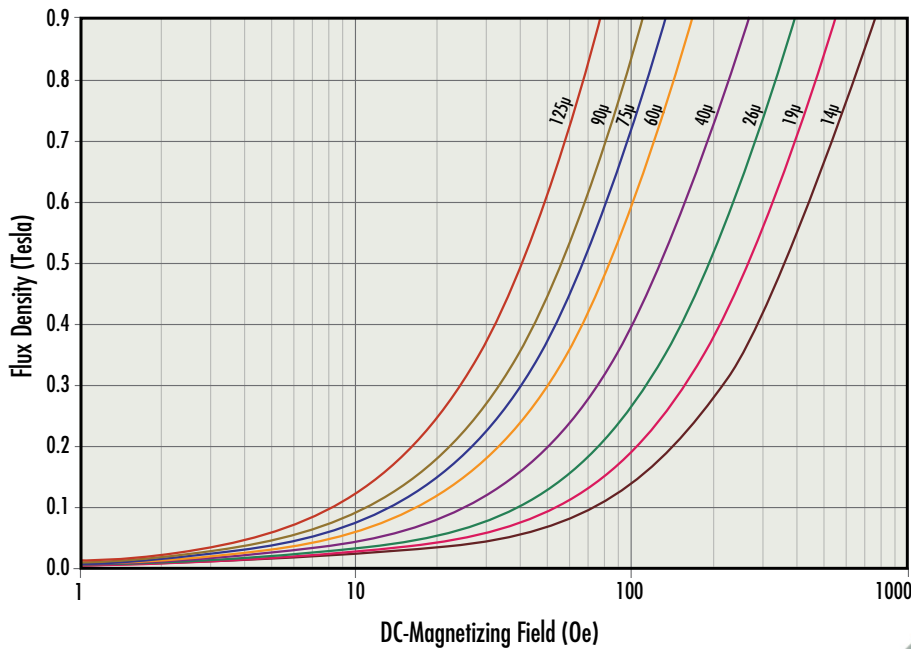
$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
	a	b	c
90μ & 125μ	121.57	2.263	1.471



DC Magnetization

$$B = \left[\frac{a + bH + cH^2}{1 + dH + eH^2} \right]^x \text{ Units: } B \text{ in Tesla, } H \text{ in Oe}$$

	a	b	c	d	e	f
14μ	1.099E-01	2.442E-02	3.465E-04	1.154E-01	2.451E-04	2.180
19μ	1.285E-01	1.690E-02	2.450E-04	6.471E-02	1.690E-04	2.199
26μ	5.394E-02	1.162E-02	4.921E-04	1.108E-01	2.725E-04	1.533
40μ	1.000E-03	2.076E-03	2.454E-05	2.589E-03	1.299E-05	0.833
60μ	1.000E-03	4.989E-03	2.155E-05	1.000E-03	1.582E-05	0.949
75μ	1.000E-03	6.274E-03	3.108E-05	1.000E-03	2.374E-05	0.950
90μ	1.000E-03	7.519E-03	4.266E-05	1.000E-03	3.254E-05	0.949
125μ	1.000E-03	1.245E-02	3.626E-05	1.011E-03	3.857E-05	1.021



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