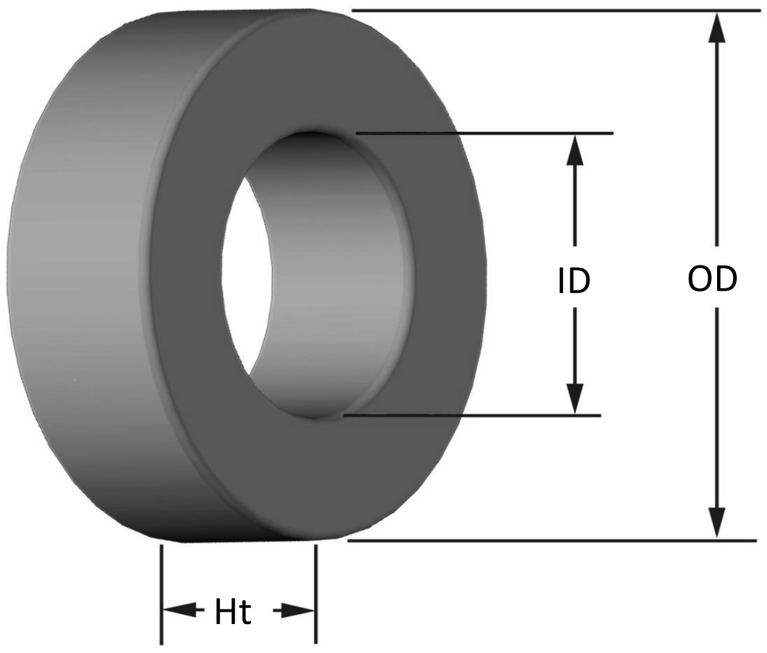
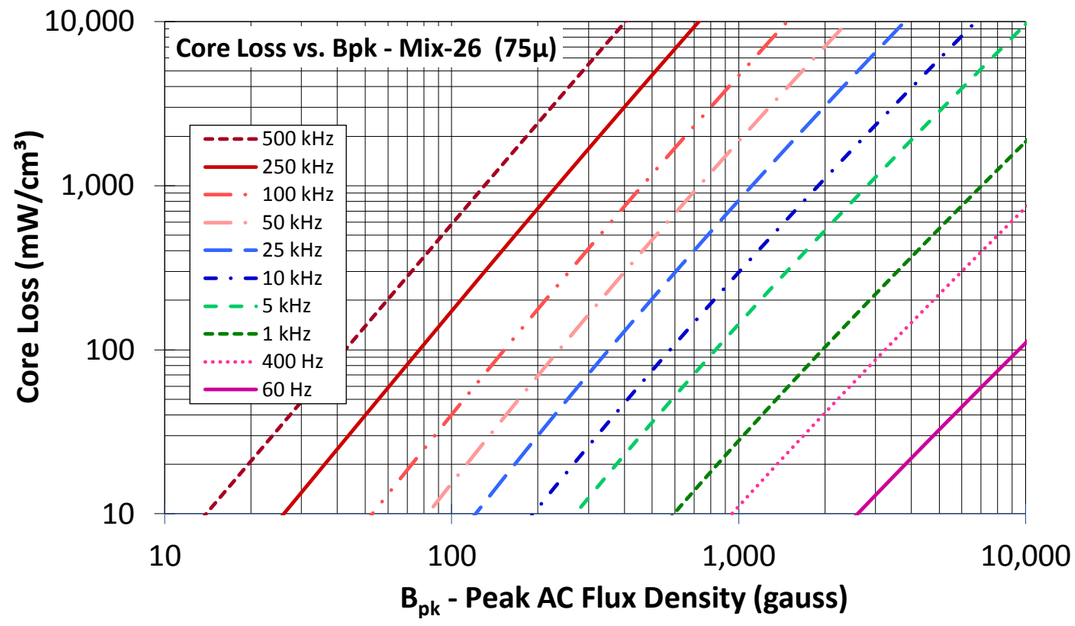
MICROMETALS™
POWDER CORE SOLUTIONS

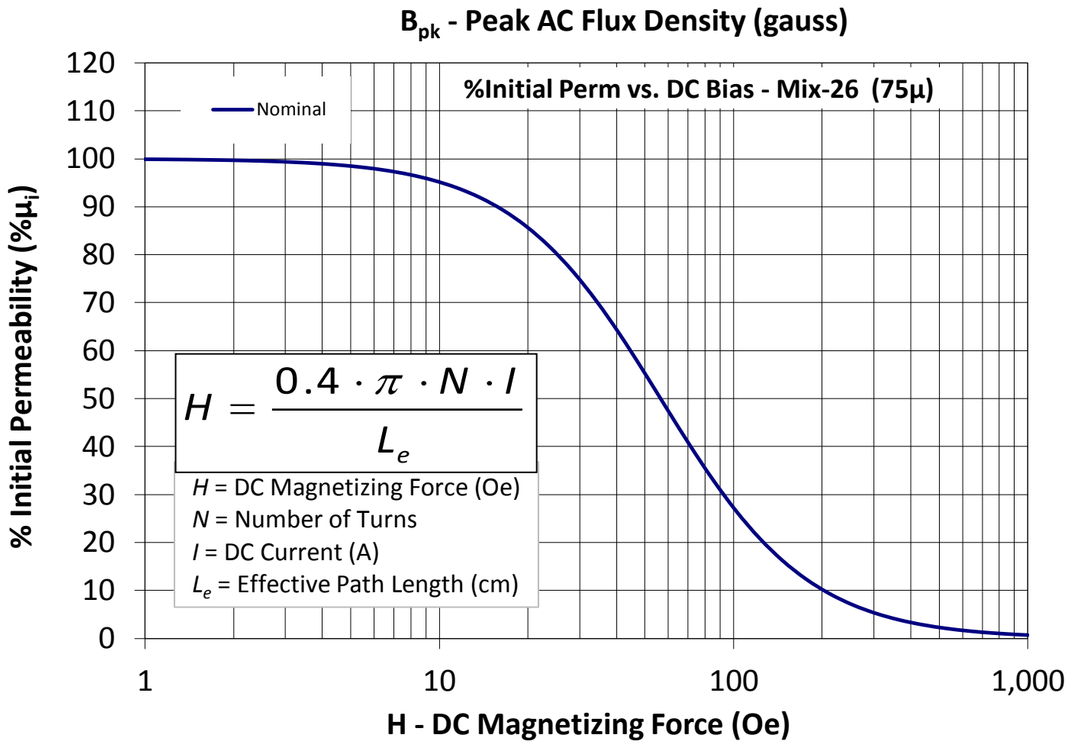
Part Number:	T27-26

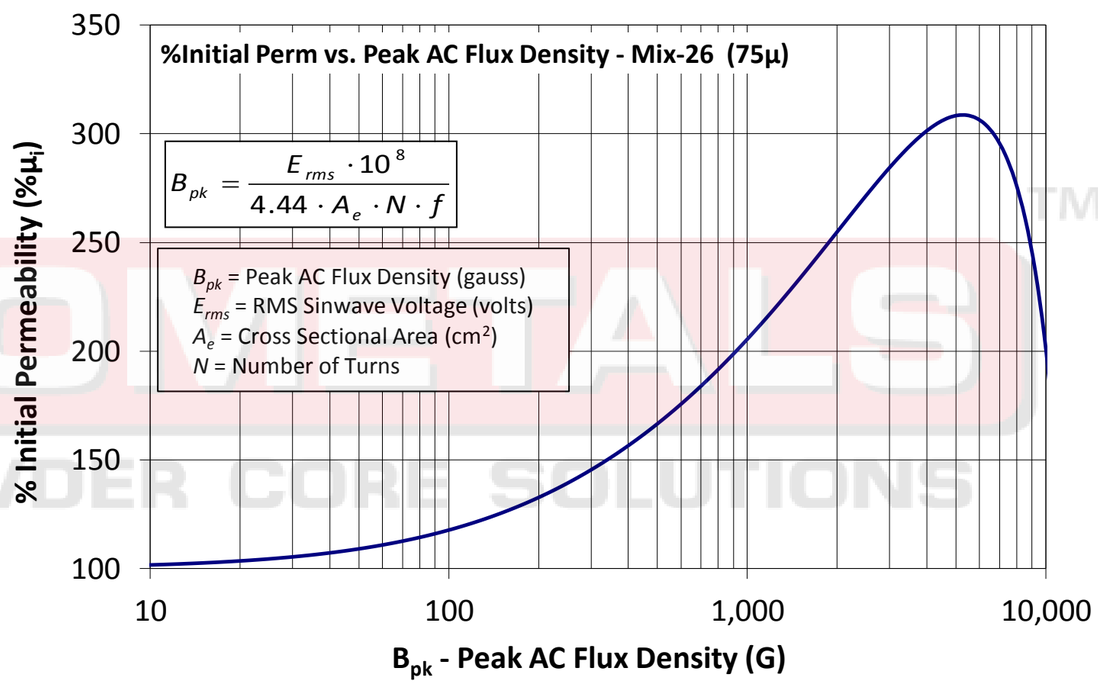
Revision 20190524 - Generated 2019-May-30

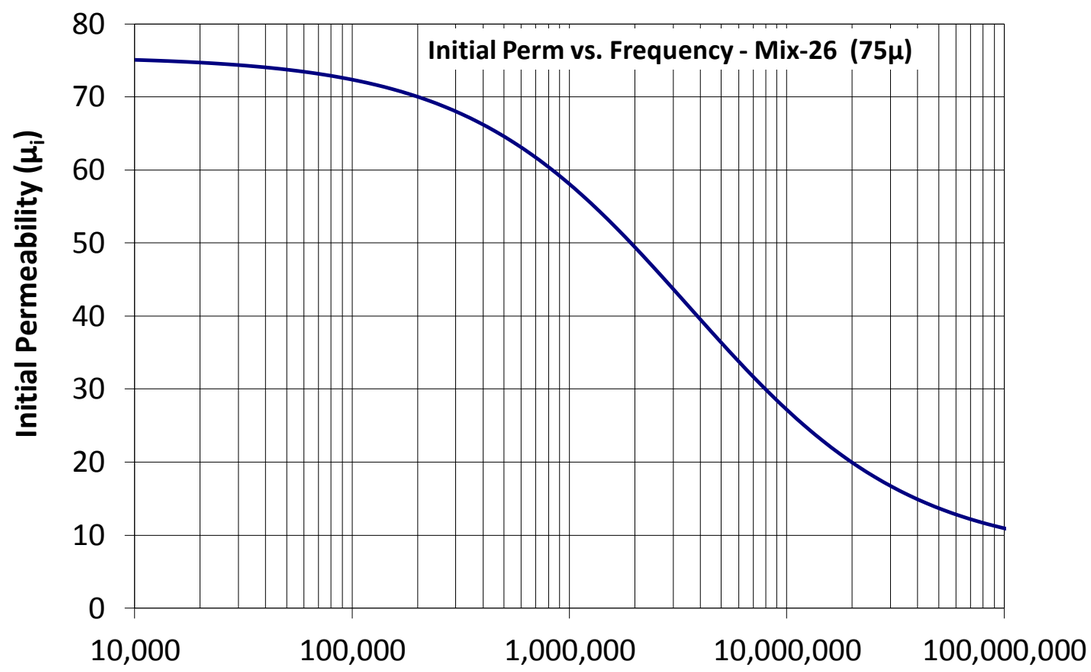


OD	(nom. - bare core)	7.11 mm	0.280 in
	(max. - after coating)	7.49 mm	0.295 in
ID	(nom. - bare core)	3.84 mm	0.151 in
	(min. - after coating)	3.45 mm	0.136 in
Ht	(nom. - bare core)	3.25 mm	0.128 in
	(max. - after coating)	3.76 mm	0.148 in
Mass	(approximate)	0.56 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0470 cm²	
	L_e - Eff. Mag. Path Length	1.71 cm	
	V_e - Eff. Core Volume	0.0800 cm³	
	WA - Min. Eff. Window Area	0.0937 cm²	
	sa - Surface Area	2.21 cm²	
	mlt - mean length per turn	1.33 cm	
Inductance	μ_i(reference)	75	
	A_L value (nominal)	27.5 nH/N²	
	Test Winding	N=50, #34 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.010 V	
	A_L tolerance	±10%	
Core Loss	Core Loss(mW/cm³)= $\frac{f}{\frac{a}{Bpk^{3}}+\frac{b}{Bpk^{2.3}}+\frac{c}{Bpk^{1.65}}}+d\cdot Bpk^{2}\cdot f^{2}$		
	where B_{pk} expressed in gauss, f expressed in hertz, and:		
	a=1.00E+09, b=1.10E+08, c=1.90E+06, d=1.90E-13		
	Bpk	140 G	
	frequency	100 kHz	
	Core Loss (nominal)	83 mW/cm³	
	Core Loss (maximum)	95 mW/cm³	
DC Saturation	$\%\mu_i = \frac{1}{a+b\cdot H^{c}}+d$		
	where H expressed in oersteds, and:		
	a=1.00E-02, b=9.70E-06, c=1.72, d=0.00		
	H_{DC}	50 Oe	
	Percent Initial Perm(nom.)	55.2%	
	Percent Initial Perm(min.)	47.4%	
Coating/Pkg	Coating Type:	Yellow/White Epoxy Paint	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	30,000 Pcs/Box	









Winding Table	**Wire Size**	AWG	22	24	26	28	30	32	34	36	38	40	42
		mm	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063
	Single Layer	Turns	11	14	18	23	30	37	47	59	75	94	117
		Rdc(Ω)	7.7 m	15.7 m	32.0 m	65.0 m	134.9 m	264.6 m	534.6 m	1.1	2.2	4.3	8.5
	Full Winding	Turns	10	16	25	39	60	93	143	222	344	532	823
		Rdc(Ω)	7.0 m	17.9 m	44.4 m	110.3 m	269.8 m	665.1 m	1.6	4.0	9.9	24.3	59.9

Micrometals Iron Powder Cores, A Division of Micrometals, Inc. - 5615 E. La Palma Ave., Anaheim, California 92807 USA
Ph: +1-714-970-9400, Toll Free in USA: +1-800-356-5977
www.Micrometals.com