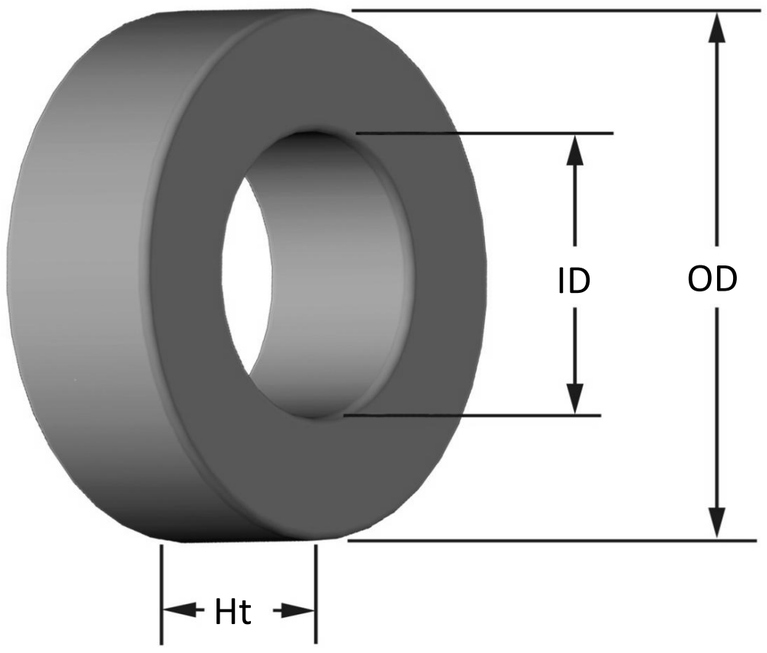
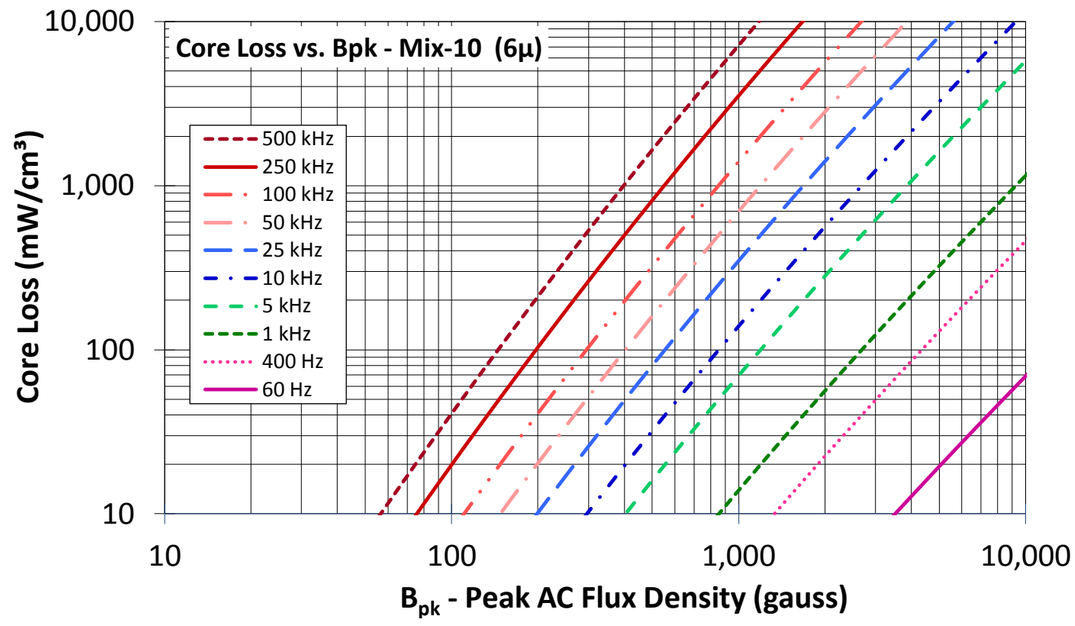
MICROMETALS™
POWDER CORE SOLUTIONS

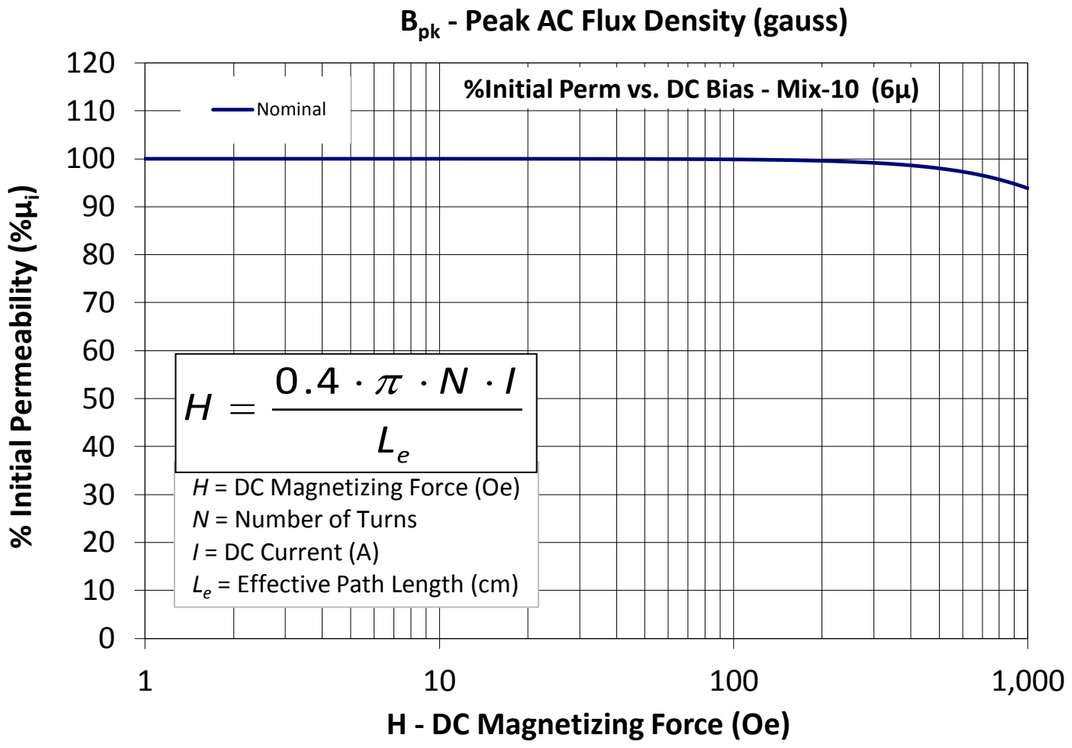
Part Number:	T20-10

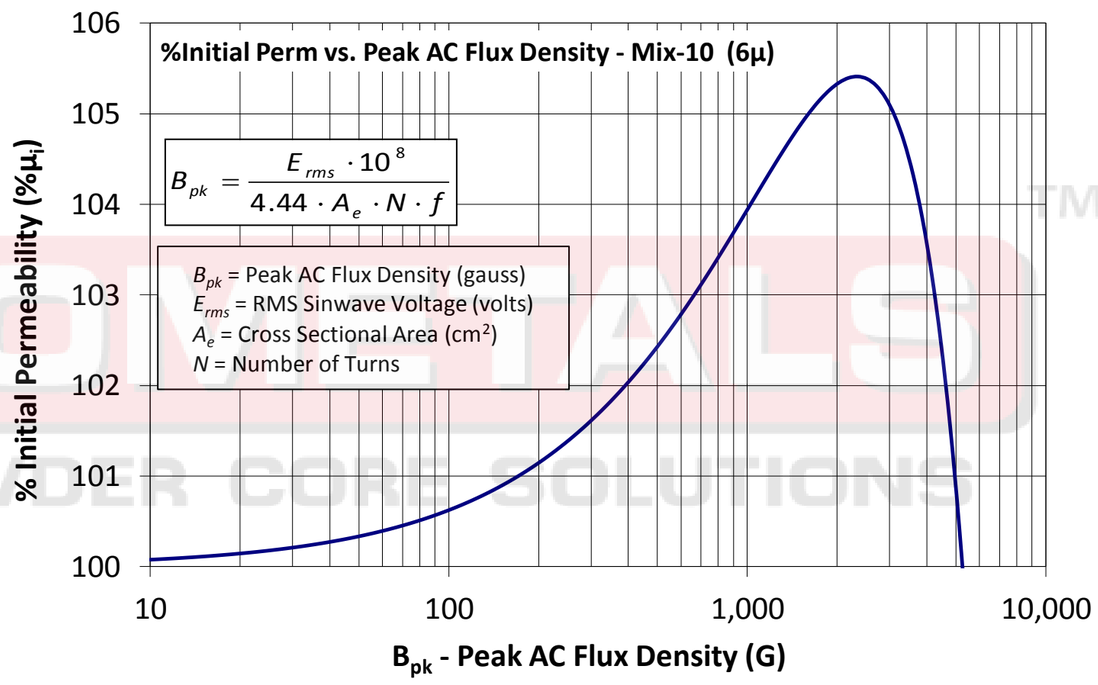
Revision 20190524 - Generated 2019-May-30

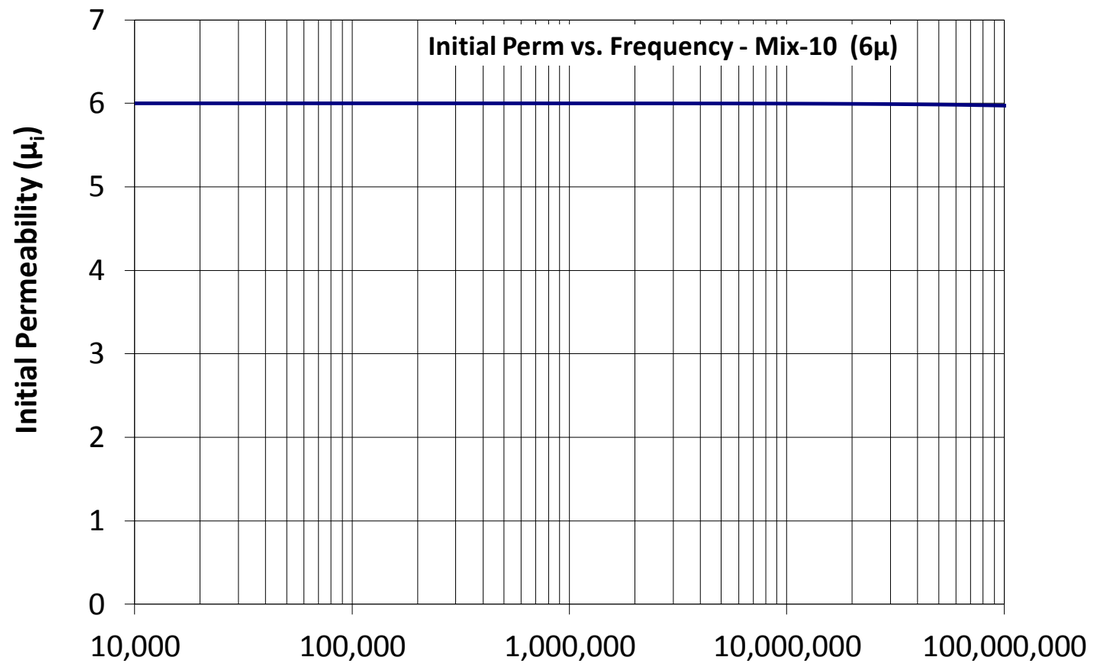


OD	(nom. - bare core)	5.08 mm	0.200 in
	(max. - after coating)	5.33 mm	0.210 in
ID	(nom. - bare core)	2.24 mm	0.088 in
	(min. - after coating)	1.98 mm	0.078 in
Ht	(nom. - bare core)	1.78 mm	0.070 in
	(max. - after coating)	2.03 mm	0.080 in
Mass	(approximate)	0.13 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0230 cm²	
	L_e - Eff. Mag. Path Length	1.15 cm	
	V_e - Eff. Core Volume	0.0260 cm³	
	WA - Min. Eff. Window Area	0.0308 cm²	
	sa - Surface Area	0.962 cm²	
	mlt - mean length per turn	0.841 cm	
Inductance	μ_i(reference)	6	
	A_L value (nominal)	1.6 nH/N²	
	Test Winding	N=50, #36 AWG	
	Frequency	1 MHz	
	Voltage on Agilent 4284A	0.51 V	
	A_L tolerance	±5%	
Core Loss & Q	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=4.00E+09, b=3.00E+08, c=2.70E+06, d=8.00E-16		
	Q test winding	N=13, #28 AWG	
	Q frequency	30 MHz	
	Q min on HP4342A	123	
DC Saturation	$\%\mu_i = \frac{1}{a+b\cdot H^{c}}+d$		
	where H expressed in oersteds, and:		
	a=1.00E-02, b=5.54E-09, c=1.69, d=0.00		
	H_{DC}	200 Oe	
	Percent Initial Perm(nom.)	99.6%	
	Percent Initial Perm(min.)	99.4%	
Coating/Pkg	Coating Type:	Parylene C	
	Voltage Breakdown (min.)	500 Vrms, 60Hz	
	Limit	3 mA, 5 s	
	Package Quantity	100,000 Pcs/Box	









Winding Table												
Wire Size	AWG	28	30	32	34	36	38	40	42	44	#N/A	#N/A
	mm	0.315	0.250	0.200	0.160	0.125	0.100	0.080	0.063	0.050	#N/A	#N/A
Single Layer	Turns	12	16	20	26	33	42	52	66	83	#N/A	#N/A
	Rdc(Ω)	21.5 m	45.5 m	90.5 m	187.2 m	377.8 m	764.7 m	1.5	3.0	6.1	#N/A	#N/A
Full Winding	Turns	13	20	30	47	73	113	175	271	419	#N/A	#N/A
	Rdc(Ω)	23.3 m	56.9 m	135.8 m	338.3 m	835.7 m	2.1	5.1	12.5	30.7	#N/A	#N/A

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