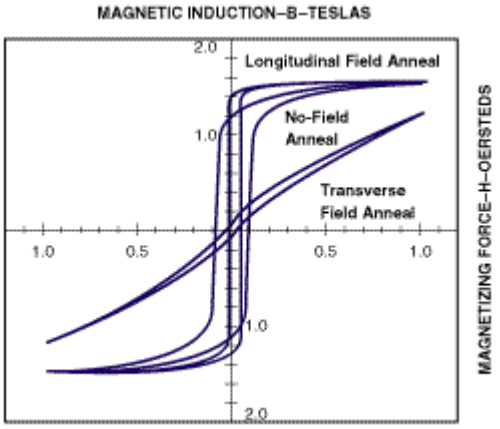
MICROLITE® Toroidal Cores are manufactured with METGLAS® amorphous alloy 2605SA1 ribbon. Their unique combination of high saturation flux density and low loss make them the first choice for all energy storage applications, enabling the designer to achieve both size and system cost reduction.



Applications

- SMPS output inductors
- Flyback transformers
- Differential input inductors
- PVC inductors
- VRM inductors

Benefits

- High saturated flux density
- Significant size reduction
- Low core loss
- Extended bias capability
- Fewer turns due to higher permeability

Physical Properties METGLAS MICROLITE XP Cores

Ribbon Thickness (µm) 22
Density (g/cm3) 7.18
Thermal Expansion (ppm/°C) 7.6
Crystallization Temperature (°C) 510
Curie Temperature (°C) 395
Continuous Service Temperature (°C) 150

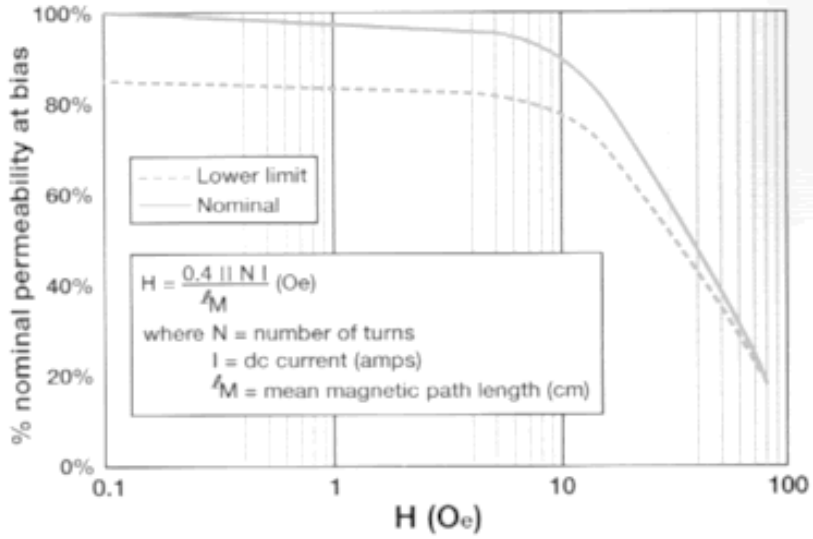
Magnetic Properties METGLAS MICROLITE XP Cores

Saturation Flux Density (Tesla) 1.56
Permeability (depending on core size) 245/270

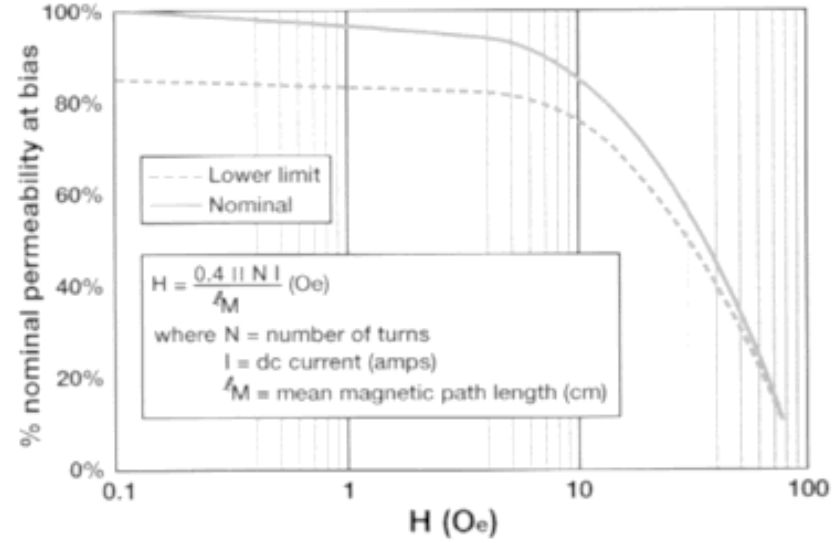
E-mail: ***metglas@metglas.com***
1-800-581-7654

Percent Permeability vs. DC Bias @ 25°C

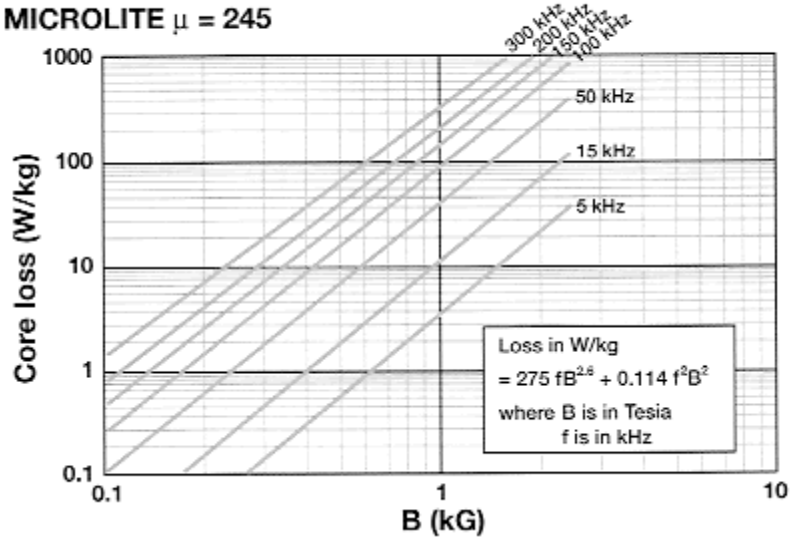
MICROLITE μ = 245

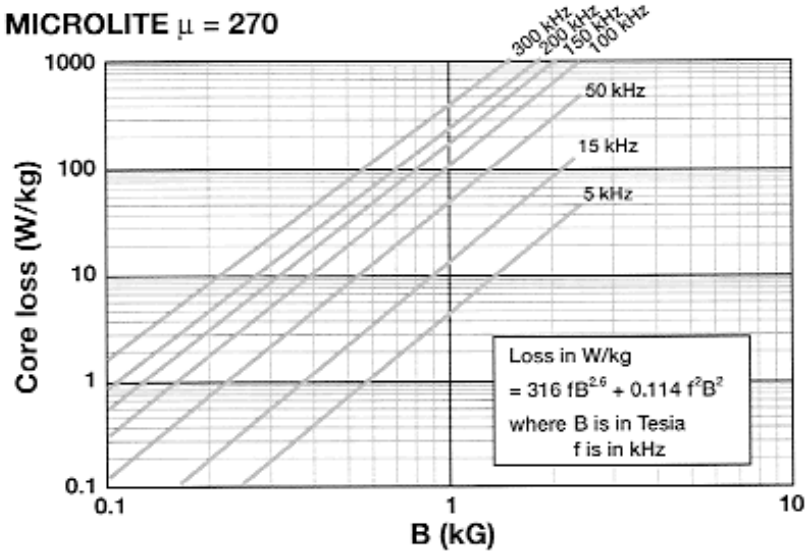


MICROLITE μ = 270



Core Loss vs. Flux Density @ 25°C





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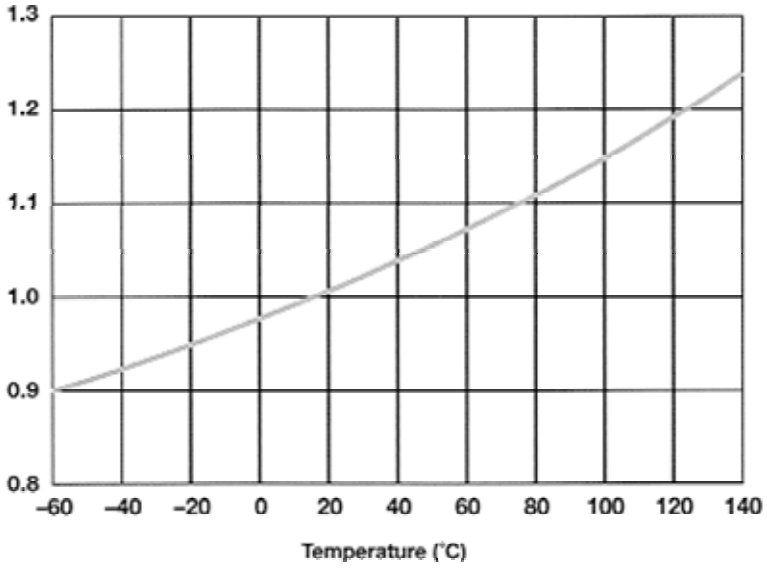
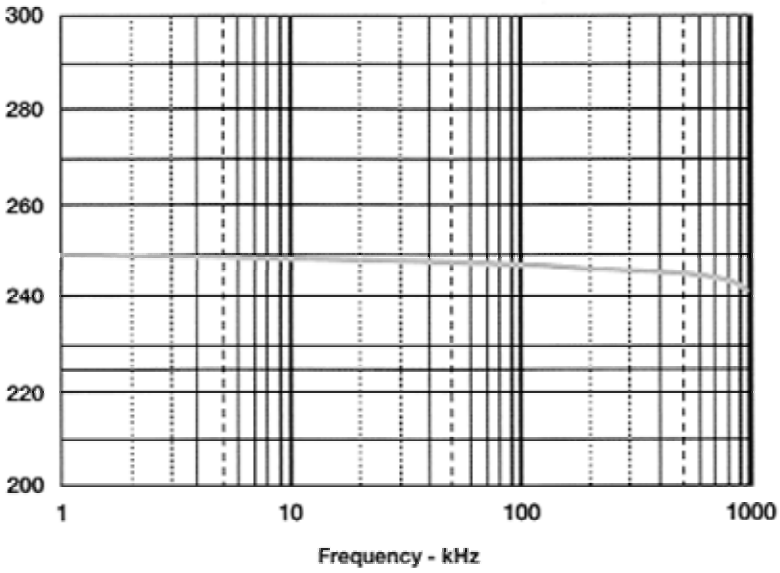
Temperature Dependence of Inductance

MICROLITE μ = 245



Permeability vs. Frequency



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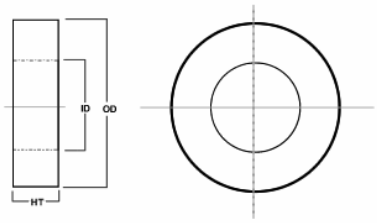
MP1305XDGC

- Metglas® Product
- Outside Diameter (OD)
- Height (HT)
- Distributed Gap Core

Case Material:

Box Type:(X)	Material:	UL File No.	Flam Rat. UL 94	Elec. Rel. Temp Rec. Index (UL746B) Temp.
P	Zytel® 70G33L	E41938	HB	120°C
L	Zytel® FR50	E41938	V-O	130°C
V	Rynite® FR530L	E69578	V-O	150°C
M	Epoxy EFB534SO	E206123	-----	----- Class B,F



	O.D. MAX (mm)	I.D. Min (mm)	HT MAX (mm)	L_m (cm)	A_c (cm^2)	Mass (g)	W_a (cm^2)	W_aA_c (cm^4)	Initial Perm.	A_L * (nH/N^2)
MP0903XDGC	9.50	4.47	4.70	2.10	0.050	0.72	0.160	0.007	270	75
MP1005XDGC	11.32	4.47	6.12	2.40	0.100	1.80	0.160	0.016	270	144
MP1105XDGC	12.19	6.07	6.29	2.80	0.100	1.94	0.290	0.028	270	117
MP1205XDGC	13.66	7.46	6.29	3.22	0.090	2.15	0.440	0.041	270	98
MP1306XDGC	14.67	7.46	7.87	3.37	0.150	3.66	0.440	0.066	245	138
MP1603XDGC	17.03	8.99	4.70	3.98	0.090	2.44	0.630	0.055	270	74
MP1710XDGC	18.68	12.16	11.05	4.74	0.200	6.75	1.160	0.230	245	129
MP2010XDGC	21.25	12.16	11.05	5.13	0.300	11.06	1.160	0.348	245	180
MP2310XDGC	24.35	12.16	11.05	5.60	0.430	17.09	1.160	0.494	245	234
MP2505XDGC	26.68	18.51	6.29	7.01	0.130	6.75	2.690	0.363	245	59
MP2510XDGC	26.84	18.51	11.05	7.01	0.270	13.57	2.690	0.725	245	118
MP2610XDGC	26.92	15.97	11.05	6.61	0.370	17.81	2.000	0.751	245	175
MP3210XDGC	33.57	21.69	11.05	8.54	0.410	25.27	3.690	1.520	245	148
MP3310XDGC	34.06	14.70	11.05	7.49	0.710	38.34	1.700	1.210	245	293
MP3505XDGC	36.40	21.69	6.29	8.97	0.260	16.87	3.690	0.968	245	90
MP3510XDGC	36.52	18.51	11.05	8.48	0.660	40.06	2.690	1.770	245	239
MP3710XDGC	38.50	21.69	11.05	9.29	0.610	40.64	3.690	2.251	245	202
MP4010XDGC	41.58	21.69	11.05	9.76	0.730	51.34	3.690	2.706	245	231
MP4510XDGC	46.73	21.69	11.05	10.55	0.940	71.15	3.690	3.472	245	274
MP7050XDGC	13.23	7.46	6.12	3.14	0.080	1.83	0.440	0.035	245	78
MP7089XDGC	46.55	28.95	15.72	11.65	0.940	79.97	6.580	6.170	245	248
MP7109XDGC	57.21	37.44	15.32	14.64	1.030	110.8	11.01	11.376	245	217
MP7120XDGC	17.31	10.46	7.87	4.24	0.140	4.32	0.860	0.119	245	100
MP7195XDGC	54.32	26.97	16.52	12.49	1.600	146.3	5.710	9.136	245	394
MP7206XDGC	21.41	13.46	7.87	5.35	0.170	6.52	1.420	0.238	245	96
MP7254XDGC	39.38	24.86	15.65	9.91	0.750	54.63	4.850	3.656	245	234
MP7310XDGC	23.49	13.46	7.87	5.66	0.220	9.15	1.420	0.315	245	121
MP7324XDGC	36.99	23.01	11.05	9.24	0.490	32.96	4.160	2.026	245	162
MP7350XDGC	23.53	14.22	9.91	5.79	0.270	11.35	1.590	0.425	245	142
MP7380XDGC	18.30	10.23	7.87	4.35	0.170	5.42	0.820	0.140	245	121
MP7438XDGC	46.61	25.22	18.99	11.05	1.430	115.7	4.990	7.141	245	398
MP7548XDGC	33.25	19.73	11.05	8.15	0.470	27.98	3.060	1.435	245	177
MP7585XDGC	34.87	23.95	9.91	9.08	0.320	21.46	4.500	1.452	245	109
MP7715XDGC	51.53	32.46	13.89	12.97	0.890	84.73	8.270	7.379	245	212
MP7930XDGC	27.18	13.46	11.05	6.21	0.480	21.75	1.420	0.681	245	237

* μ and A_L are ±15% and Bias measurements based on windings greater than 5 turns/cm path length
L_m = mean magnetic path length A_c = net cross sectional area W_a = nominal core window area

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Please check http://www.metglas.com/contacts for a distributor near you.