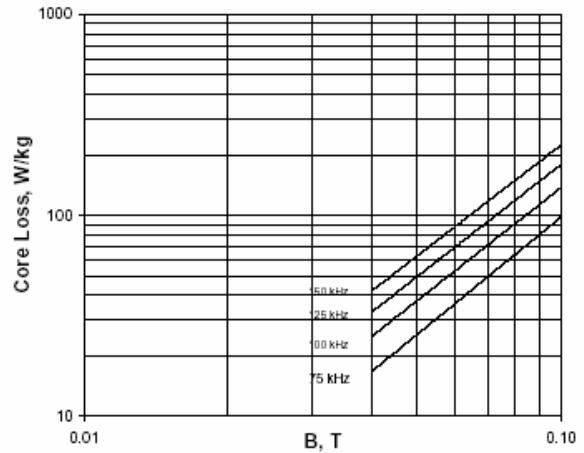


MICROLITE® 100μ CORES

MICROLITE® 100 μ cores are gapped toroids made from iron-based METGLAS® amorphous alloy 2605SA1. They offer a unique combination of high saturation induction (1.56 T), high permeability and low core loss. MICROLITE® 100μ cores are suitable in high frequency, energy storage applications. As with all other METGLAS products, MICROLITE® 100μ cores allow the use of significantly smaller sizes than other conventional soft magnetic materials.

Core loss vs. Magnetic Induction and Frequency



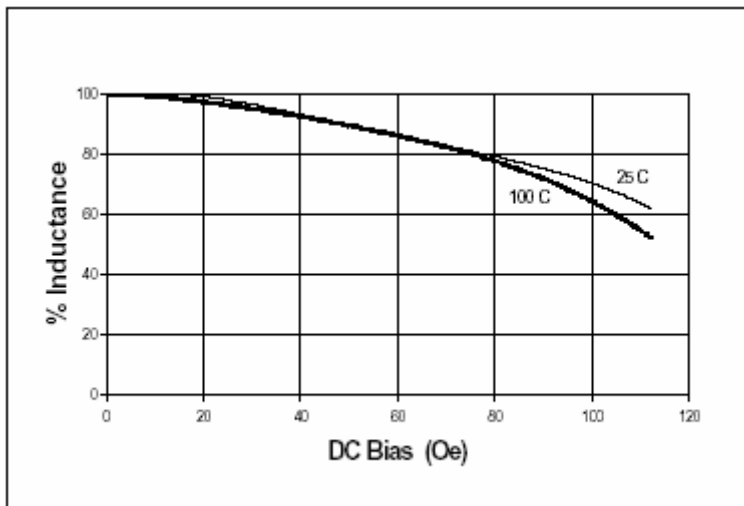
$$\text{Core Loss (W/kg)} = 40.43 \cdot f(\text{kHz})^{1.21} \cdot B(\text{T})^{1.88}$$

Physical Properties METGLAS MICROLITE 100μ Cores

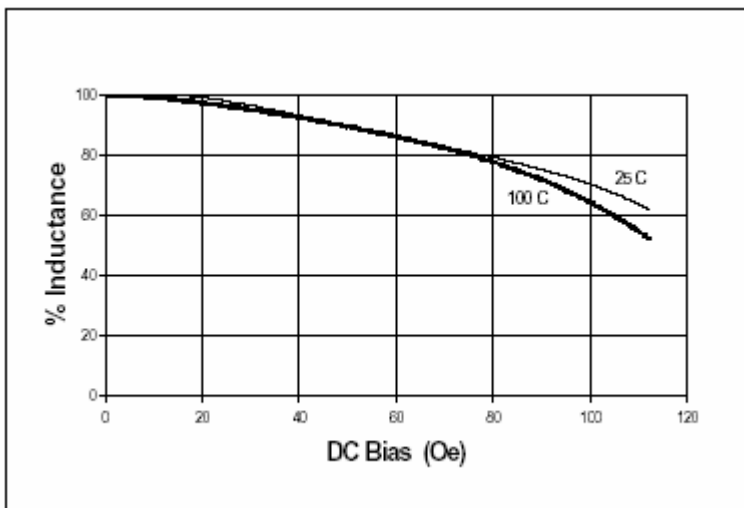
Ribbon Thickness (μm)	22
Density (g/cm ³)	7.18
Thermal Expansion (ppm/°C)	7.6
Crystallization Temperature (°C)	505
Curie Temperature (°C)	392

Magnetic Properties METGLAS MICROLITE 100μ Cores

Saturation Flux Density (Tesla)	1.56
Effective Permeability	100
Electrical Resistivity (μΩ-cm)	137



Bias Characteristics of Inductance

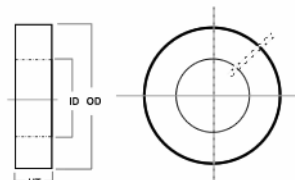


Temperature Dependence of
Inductance vs. DC Bias

Core Ordering Specifications

MP1305MPFC

Metglas® Product		Power Factor Correction	
Outside Diameter (OD)			
Height (HT)			
Case Material:			
Box Type:(X)	Material:	UL File No.	Flam Ret. Index (UL746B) Temp.
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 _a A _c (cm ⁴)	Initial Perm.	A _L * (nH/N ²)
MP1205MPFC	12.47	8.00	4.76	3.22	0.090	2.14	0.440	0.040	100	36
MP1306MPFC	13.46	8.00	6.35	3.37	0.150	3.65	0.440	0.070	100	56
MP1603MPFC	15.80	9.53	3.18	3.98	0.090	2.47	0.630	0.050	100	27
MP1710MPFC	17.48	12.70	9.53	4.74	0.200	6.73	1.160	0.230	100	53
MP2010MPFC	19.94	12.70	9.53	5.13	0.300	11.04	1.160	0.350	100	74
MP2310MPFC	22.96	12.70	9.53	5.60	0.430	17.10	1.160	0.490	100	95
MP2510MPFC	25.55	19.05	9.53	7.01	0.270	13.55	2.690	0.730	100	48
MP2610MPFC	25.55	16.51	9.53	6.61	0.370	17.77	2.000	0.750	100	71
MP2616MPFC	25.55	14.00	15.54	6.21	0.780	29.00	1.420	1.110	100	158
MP3210MPFC	32.16	22.23	9.53	8.54	0.410	25.24	3.690	1.520	100	61
MP3310MPFC	32.44	15.24	9.53	7.49	0.710	38.31	1.700	1.210	100	120
MP3510MPFC	34.93	19.05	9.53	8.48	0.660	40.04	2.690	1.770	100	98
MP4010MPFC	39.90	22.23	9.53	9.76	0.730	51.33	3.690	2.710	100	94
MP4510MPFC	44.91	22.23	9.53	10.55	0.940	71.16	3.690	3.470	100	112
MP4520MPFC	44.91	22.23	19.05	10.55	1.880	145.2	3.690	6.950	100	224
MP5812MPFC	58.00	25.40	12.70	13.10	1.800	172.8	4.850	8.740	100	173
MP7050MPFC	11.99	8.00	4.60	3.14	0.080	1.83	0.440	0.030	100	32
MP7089MPFC	44.67	29.49	14.19	11.65	0.940	79.96	6.580	6.170	100	101
MP7109MPFC	55.20	37.97	13.79	14.64	1.030	110.7	11.01	11.38	100	89
MP7120MPFC	16.00	11.00	6.35	4.24	0.140	4.29	0.860	0.120	100	41
MP7195MPFC	52.02	27.51	15.00	12.49	1.600	146.3	5.710	9.140	100	161
MP7206MPFC	20.04	14.00	6.35	5.35	0.170	6.54	1.420	0.240	100	39
MP7254MPFC	37.66	25.40	14.12	9.91	0.750	54.64	4.850	3.660	100	96
MP7310MPFC	22.02	14.00	6.35	5.66	0.220	9.19	1.420	0.320	100	49
MP7324MPFC	35.31	23.55	9.53	9.24	0.490	32.99	4.160	2.030	100	66
MP7350MPFC	22.10	14.76	8.38	5.79	0.270	11.35	1.590	0.430	100	58
MP7380MPFC	16.94	10.77	6.35	4.35	0.170	5.44	0.820	0.140	100	49
MP7438MPFC	44.58	25.76	17.46	11.05	1.430	115.6	4.990	7.140	100	163
MP7548MPFC	31.60	20.27	9.53	8.15	0.470	28.01	3.060	1.440	100	72
MP7585MPFC	33.32	24.49	8.38	9.08	0.320	21.43	4.500	1.450	100	45
MP7715MPFC	49.57	32.99	12.37	12.97	0.890	84.71	8.270	7.380	100	86
MP7930MPFC	25.55	14.00	9.53	6.21	0.480	21.79	1.420	0.680	100	96

* μ and A_L are $\pm 15\%$ and Bias measurements based on windings greater than 5 turns/cm path length

Core Sizes*

* μ and A_L are $\pm 15\%$. Custom sizes are available.

Contact Information:

USA

Metglas®, Inc.

440 Allied Drive
Conway, SC 29526
Tel: (800) 581-7654
Tel: (843) 349-7363
Fax: (843) 349-6815

ASIA

Hitachi Metals Hong Kong

Room 1107, West Wing,
Tsim Sha Tsui Centre,
66 Mody Road, TST East,
Hong Kong.
Tel: (852) 27227680
Fax: (852) 27227660

EUROPE

Hitachi Metals Europe

Immerman Strasse 14-16
D-40210 Duesseldorf, Germany
Tel: +49 211 160 09 - 11
Fax: +49 211 160 09 - 30

*At the time of publishing, the contact information was current and accurate.
Please check <http://www.metglas.com/contacts> for a distributor near you.*