DATA SHEET

TX13/7.6/4.8
Alloy powder toroids

New data

2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

RING CORES (TOROIDS)

Effective core parameters

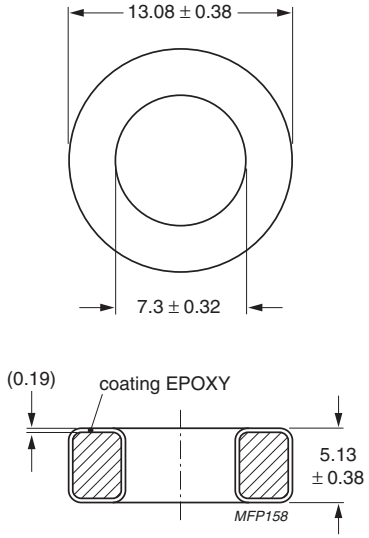
SYMBOL	PARAMETER		VALUE	UNIT
Σ(l/A)	core factor (C1)		2.74	mm^{-1}
V_e	effective volume		356	mm^3
l_e	effective length		31.2	mm
A_e	effective area		11.4	mm^2
m	mass of core (for μ_i 125)	MPP	3.07	g
		Sendust	2.20	g
		High-Flux	2.90	g

Coating

The cores are coated with epoxy. The colour is black (Sendust), grey (MPP) or khaki (High-Flux). Maximum operating temperature is 200 °C. Parylene coating is also available (transparent, maximum operating temperature 130 °C).

Isolation voltage

AC isolation voltage : 1000 V (Parylene : 750 V). Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TX13/7.6/4.8 ring core.

Ring core data - Note 1. Mechanical dimensions : OD ≤ 13.46, ID ≥ 6.99, H ≤ 5.51

GRADE	A_L (nH)	μ_i	B (mT) at H = 100 kA/m; f = 10 kHz; T = 25 °C	CORE LOSS (W) at $\hat{B}$ = 100 mT; f = 100 kHz; T = 25 °C	TYPE NUMBER
MPP	6.4 ± 8 %	14	≥ 640	0.534	TX13/4.8-M2-A6.4
	12 ± 8 %	26	≥ 700	0.427	TX13/4.8-M2-A12
	27 ± 8 %	60	≥ 760	0.267	TX13/4.8-M2-A27
	56 ± 8 %	125	≥ 800	0.267	TX13/4.8-M2-A56
	67 ± 8 %	147	≥ 800	0.285	TX13/4.8-M2-A67
	72 ± 8 %	160	≥ 800	0.285	TX13/4.8-M2-A72
	79 ± 8 %	173	≥ 800	0.285	TX13/4.8-M2-A79
	90 ± 8 %	200	≥ 800	0.534	TX13/4.8-M2-A90
	134 ± 8 %	300	≥ 800	0.534	TX13/4.8-M2-A134
Sendust (1)	27 ± 8 %	60	≥ 1030	0.304	TX13/4.8-S7-A27-MC
	34 ± 8 %	75	≥ 1040	0.304	TX13/4.8-S7-A34-MC
	40 ± 8 %	90	≥ 1050	0.304	TX13/4.8-S7-A40-MC
	56 ± 8 %	125	≥ 1060	0.304	TX13/4.8-S7-A56-MC
High-Flux	6.4 ± 8 %	14	≥ 890	0.890	TX13/4.8-H2-A6.4
	12 ± 8 %	26	≥ 980	0.712	TX13/4.8-H2-A12
	27 ± 8 %	60	≥ 1280	0.641	TX13/4.8-H2-A27
	56 ± 8 %	125	≥ 1370	0.712	TX13/4.8-H2-A56
	67 ± 8 %	147	≥ 1385	0.783	TX13/4.8-H2-A67
	72 ± 8 %	160	≥ 1400	1.25	TX13/4.8-H2-A72

DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

DISCLAIMER

Life support applications — These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.

PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype	prot	These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
Design-in	des	These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support	sup	These products are **not** recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.