DATA SHEET

TX33/20/11
Alloy powder toroids

New data

2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

RING CORES (TOROIDS)

Effective core parameters

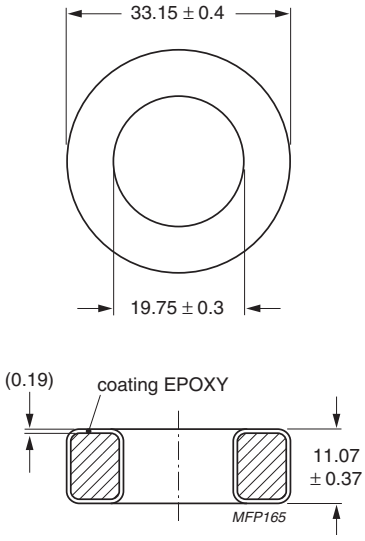
SYMBOL	PARAMETER		VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)		1.21	mm^{-1}
V_e	effective volume		5480	mm^3
l_e	effective length		81.5	mm
A_e	effective area		67.2	mm^2
m	mass of core (for μ_i 125)	MPP	46.9	g
		Sendust	33.7	g
		High-Flux	44.2	g

Coating

The cores are coated with epoxy. The colour is black (Sendust), grey (MPP) or khaki (High-Flux).
Maximum operating temperature is 200 °C.

Isolation voltage

AC isolation voltage : 1000 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 TX33/20/11 ring core.

Ring core data - Note 1. Mechanical dimensions : OD ≤ 33.83, ID ≥ 19.3, H ≤ 11.61

GRADE	A_L (nH)	μ_i	B (mT) at H = 100 kA/m; f = 10 kHz; T = 25 °C	CORE LOSS (W) at f = 100 kHz; $\hat{B}$ = 100 mT; T = 25 °C	TYPE NUMBER
MPP	14 ± 8 %	14	≥ 640	8.22	TX33/11-M2-A14
	28 ± 8 %	26	≥ 700	6.58	TX33/11-M2-A28
	61 ± 8 %	60	≥ 760	4.11	TX33/11-M2-A61
	127 ± 8 %	125	≥ 800	4.11	TX33/11-M2-A127
	150 ± 8 %	147	≥ 800	4.38	TX33/11-M2-A150
	163 ± 8 %	160	≥ 800	4.38	TX33/11-M2-A163
	176 ± 8 %	173	≥ 800	4.38	TX33/11-M2-A176
	203 ± 8 %	200	≥ 800	8.22	TX33/11-M2-A203
	305 ± 8 %	300	≥ 800	8.22	TX33/11-M2-A305
Sendust (1)	28 ± 8 %	26	≥ 1000	8.77	TX33/11-S7-A28-MC
	61 ± 8 %	60	≥ 1030	4.69	TX33/11-S7-A61-MC
	76 ± 8 %	75	≥ 1040	4.69	TX33/11-S7-A76-MC
	91 ± 8 %	90	≥ 1050	4.69	TX33/11-S7-A91-MC
	127 ± 8 %	125	≥ 1060	4.69	TX33/11-S7-A127-MC
High-Flux	14 ± 8 %	14	≥ 890	13.7	TX33/11-H2-A14
	28 ± 8 %	26	≥ 980	11.0	TX33/11-H2-A28
	61 ± 8 %	60	≥ 1280	9.86	TX33/11-H2-A61
	127 ± 8 %	125	≥ 1370	11.0	TX33/11-H2-A127
	150 ± 8 %	147	≥ 1385	12.1	TX33/11-H2-A150
	163 ± 8 %	160	≥ 1400	19.2	TX33/11-H2-A163

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.

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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.
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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.