FERROXCUBE

DATA SHEET

TX3.9/2.2/2.5
Alloy powder toroids

New data 2008 Sep 01



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TX3.9/2.2/2.5

RING CORES (TOROIDS)

Effective core parameters

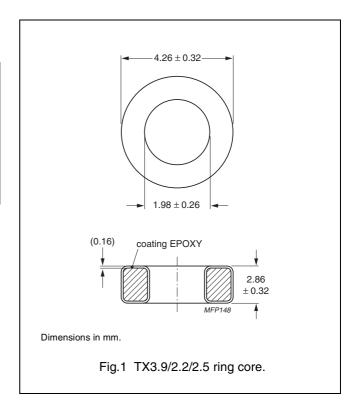
SYMBOL	PARAMET	VALUE	UNIT	
Σ(I/A)	core factor (C1)	4.46	mm ⁻¹	
V _e	effective volume		19.9	mm ³
l _e	effective length		9.42	mm
A _e	effective area		2.11	mm ²
m	mass of core	MPP	0.17	g
(for μ _i 125)		Sendust	0.12	g

Coating

The cores are coated with epoxy. The colour is cream (Sendust), grey (MPP) or khaki (High-Flux). Maximum operating temperature is 200 $^{\circ}$ C. Parylene coating is also available (transparent, maximum operating temperature 130 $^{\circ}$ 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.



Ring core data

			B (mT) at	CORE LOSS (W) at	
GRADE	A _L (nH)	$\mu_{\mathbf{i}}$	H = 100 kA/m; f = 10 kHz; T = 25 °C	f = 100 kHz; B = 100 mT; T = 25 °C	TYPE NUMBER
MPP	35 ± 8 %	125	≥ 800	0.015	TX3.9/2.5-M2-A35
	41 ± 8 %	147	≥ 800	0.016	TX3.9/2.5-M2-A41
	45 ± 8 %	160	≥ 800	0.016	TX3.9/2.5-M2-A45
	48 ± 8 %	173	≥ 800	0.016	TX3.9/2.5-M2-A48
	56 ± 8 %	200	≥ 800	0.030	TX3.9/2.5-M2-A56
	84 ± 8 %	300	≥ 800	0.030	TX3.9/2.5-M2-A84
Sendust	17 ± 15 %	60	≥ 1030	0.017	TX3.9/2.5-S7-A17
-	21 ± 15 %	75	≥ 1040	0.017	TX3.9/2.5-S7-A21
	25 ± 15 %	90	≥ 1050	0.017	TX3.9/2.5-S7-A25
	35 ± 15 %	125	≥ 1060	0.017	TX3.9/2.5-S7-A35

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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.

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