

DATA SHEET

TX40/24/15

Powder material toroids

New data

2007 Jan 01



FERROXCUBE
A YAGEO COMPANY

RING CORES (TOROIDS)

Effective core parameters

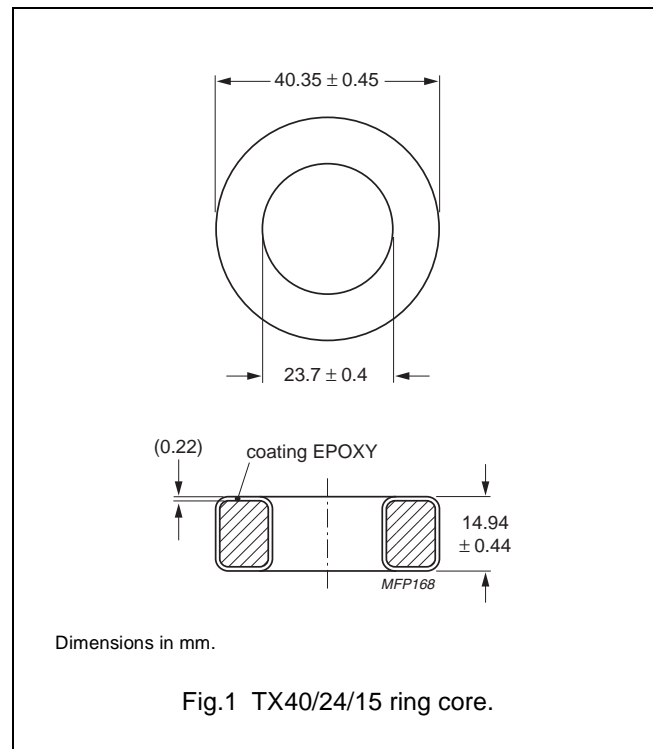
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.920	mm ⁻¹
V_e	effective volume	10500	mm ³
l_e	effective length	98.4	mm
A_e	effective area	107	mm ²
m	mass of core (for μ_i 125)	MPP	91.7 g
		Sendust	64.9 g
		High-Flux	86.5 g

Coating

The cores are coated with epoxy. The colour is cream (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.



Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
MPP	19 ± 8 %	14	TX40/15-M2-A19
	35 ± 8 %	26	TX40/15-M2-A35
	81 ± 8 %	60	TX40/15-M2-A81
	168 ± 8 %	125	TX40/15-M2-A168
	198 ± 8 %	147	TX40/15-M2-A198
	215 ± 8 %	160	TX40/15-M2-A215
	233 ± 8 %	173	TX40/15-M2-A233
	269 ± 8 %	200	TX40/15-M2-A269
Sendust	403 ± 8 %	300	TX40/15-M2-A403
	35 ± 8 %	26	TX40/15-S7-A35
	81 ± 8 %	60	TX40/15-S7-A81
	101 ± 8 %	75	TX40/15-S7-A101
	121 ± 8 %	90	TX40/15-S7-A121
	168 ± 8 %	125	TX40/15-S7-A168

Powder material toroids

TX40/24/15

GRADE	A_L (nH)	μ_i	TYPE NUMBER
High-Flux	$19 \pm 8 \%$	14	TX40/15-H2-A19
	$35 \pm 8 \%$	26	TX40/15-H2-A35
	$81 \pm 8 \%$	60	TX40/15-H2-A81
	$168 \pm 8 \%$	125	TX40/15-H2-A168
	$198 \pm 8 \%$	147	TX40/15-H2-A198
	$215 \pm 8 \%$	160	TX40/15-H2-A215

Properties of cores under power conditions

GRADE	μ_i	B (mT) at	CORE LOSS (W) at
		H = 100 kA/m; f = 10 kHz; T = 25 °C	f = 100 kHz; $\hat{B} = 100$ mT; T = 25 °C
MPP	14	≥ 640	15.8
	26	≥ 700	12.6
	60	≥ 760	7.87
	125	≥ 800	7.87
	147	≥ 800	8.40
	160	≥ 800	8.40
	173	≥ 800	8.40
	200	≥ 800	15.8
	300	≥ 800	15.8
Sendust	26	≥ 1000	16.8
	60	≥ 1030	8.98
	75	≥ 1040	8.98
	90	≥ 1050	8.98
	125	≥ 1060	8.98
High-Flux	14	≥ 890	26.3
	26	≥ 980	21.0
	60	≥ 1280	18.9
	125	≥ 1370	21.0
	147	≥ 1385	23.1
	160	≥ 1400	36.8




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		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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Support		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.