

# DATA SHEET

**TX40/24/16**  
Ferrite toroids

New data

2008 Sep 01

**RING CORES (TOROIDS)**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.769	mm <sup>-1</sup>
$V_e$	effective volume	12100	mm <sup>3</sup>
$l_e$	effective length	96.3	mm
$A_e$	effective area	125	mm <sup>2</sup>
m	mass of core	≈ 62	g

**Coating**

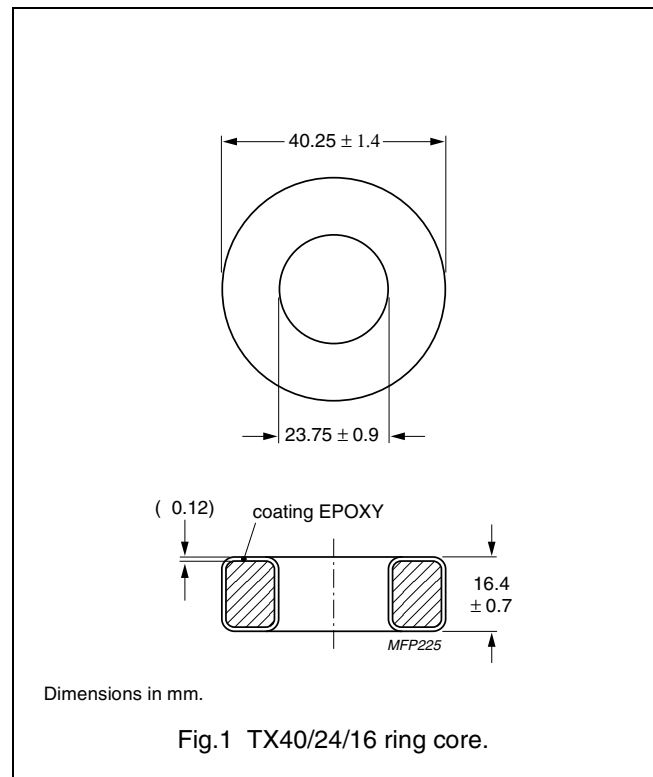
The cores are coated with epoxy, flame retardant in accordance with "UL 94V-0"; UL file number E 228348. The colour is white.

Maximum operating temperature is 200 °C.

**Isolation voltage**

DC isolation voltage: 2000 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)	$\mu_i$	TYPE NUMBER
3F3	3000 ± 25 %	≈ 1835	TX40/24/16-3F3
3C90	3500 ± 25 %	≈ 2140	TX40/24/16-3C90
3C11	6800 ± 25 %	≈ 4160	TX40/24/16-3C11
3E26	10800 ± 25 %	≈ 6610	TX40/24/16-3E26
3E27	9363 ± 25 %	≈ 5730	TX40/24/16-3E27
3E5	12900 ± 30 %	≈ 7890	TX40/24/16-3E5

**Properties of cores under power conditions**

GRADE	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 25 kHz; T = 100 °C	f̂ = 25 kHz; B̂ = 200 mT; T = 100 °C	f̂ = 100 kHz; B̂ = 100 mT; T = 100 °C	f̂ = 400 kHz; B̂ = 50 mT; T = 100 °C
3C90	≥ 320	≤ 1.4	≤ 1.4	–
3F3	≥ 320	–	≤ 1.4	≤ 2.3




**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
<b>Prototype</b>		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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