

# DATA SHEET

**TX51/32/19**  
Ferrite toroids

Supersedes data of September 2004

2008 Sep 01

# Ferrite toroids

TX51/32/19

## RING CORES (TOROIDS)

### Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.73	mm <sup>-1</sup>
$V_e$	effective volume	21500	mm <sup>3</sup>
$l_e$	effective length	125	mm
$A_e$	effective area	172	mm <sup>2</sup>
m	mass of core	≈ 100	g

### Coating

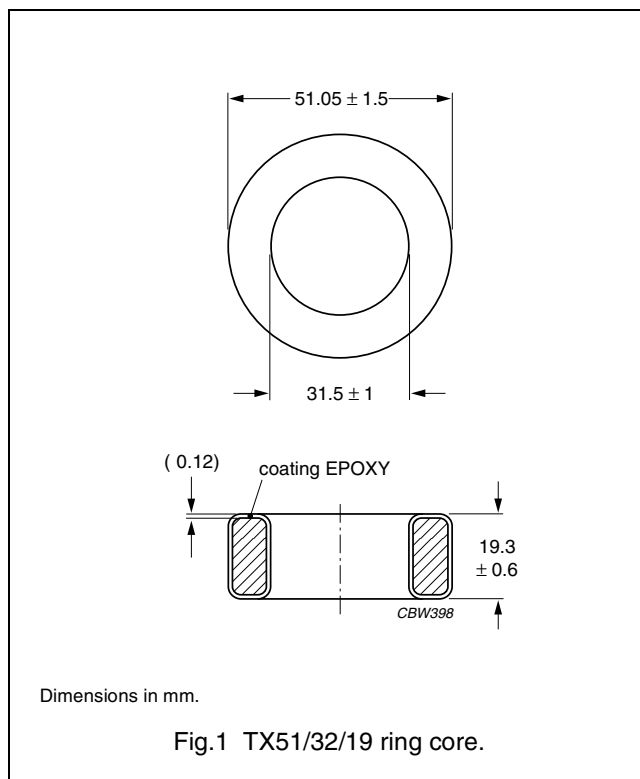
The cores are coated with epoxy, flame retardant in accordance with "UL 94V-0"; UL file number E 235873. The colour is white.

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 <small>des</small>	3200 ± 20%	≈ 1800	TX51/32/19-3F3
3C90	3980 ± 20%	≈ 2300	TX51/32/19-3C90
3C81	4800 ± 20%	≈ 2700	TX51/32/19-3C81
3E25	8890 ± 20%	≈ 5000	TX51/32/19-3E25
3E27 <small>des</small>	8890 ± 20%	≈ 5000	TX51/32/19-3E27
3E6	17300 ± 30%	≈ 10000	TX51/32/19-3E6

### Properties of cores under power conditions

GRADE	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; B = 200 mT; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 400 kHz; B = 50 mT; T = 100 °C
3C81	≥320	≤ 4.4	–	–
3C90	≥320	≤ 2.4	≤ 2.4	–
3F3	≥320	–	≤ 2.4	≤ 4.1




**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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