### **FERROXCUBE**

## DATA SHEET

# TX16/9.1/4.7 Ferrite toroids

Supersedes data of September 2004

2008 Sep 01



Ferrite toroids TX16/9.1/4.7

#### **RING CORES (TOROIDS)**

#### **Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
Σ(I/A)	core factor (C1)	2.53	mm <sup>-1</sup>
V <sub>e</sub>	effective volume	548	mm <sup>3</sup>
l <sub>e</sub>	effective length	37.2	mm
A <sub>e</sub>	effective area	14.7	mm <sup>2</sup>
m	mass of core	≈ 2.7	g

#### Coating

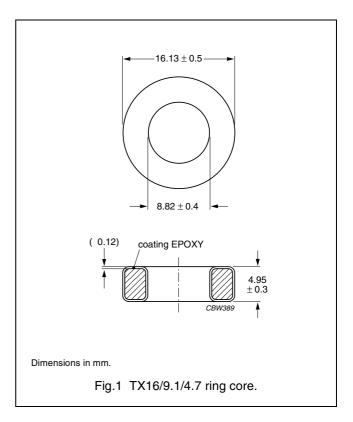
The cores are coated with epoxy, flame retardant in accordance with "UL 94V-0"; UL file number E 228348. The colour is white.

Maximum operating temperature is 200  $^{\circ}$ C.

#### Isolation voltage

DC isolation voltage: 1500 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 <sub>L</sub> (nH)	μί	TYPE NUMBER
3C90	1215 ± 20%	≈ <b>2300</b>	TX16/9.1/4.7-3C90
3C81	1400 ± 20%	≈ 2700	TX16/9.1/4.7-3C81
3E27	2600 ± 20%	≈ 5000	TX16/9.1/4.7-3E27
3E6 des	5200 ± 30%	≈ 10500	TX16/9.1/4.7-3E6

#### Properties of cores under power conditions

B (mT) at		CORE LO	SS (W) at
GRADE	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
3C81	≥320	≤ 0.11	-
3C90	≥320	≤ 0.055	≤ 0.055

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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.

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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.
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 <b>not</b> 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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