

# DATA SHEET

**TX16/10/6.4**  
Alloy powder toroids

New data

2008 Sep 01

# Alloy powder toroids

TX16/10/6.4

## RING CORES (TOROIDS)

### Effective core parameters

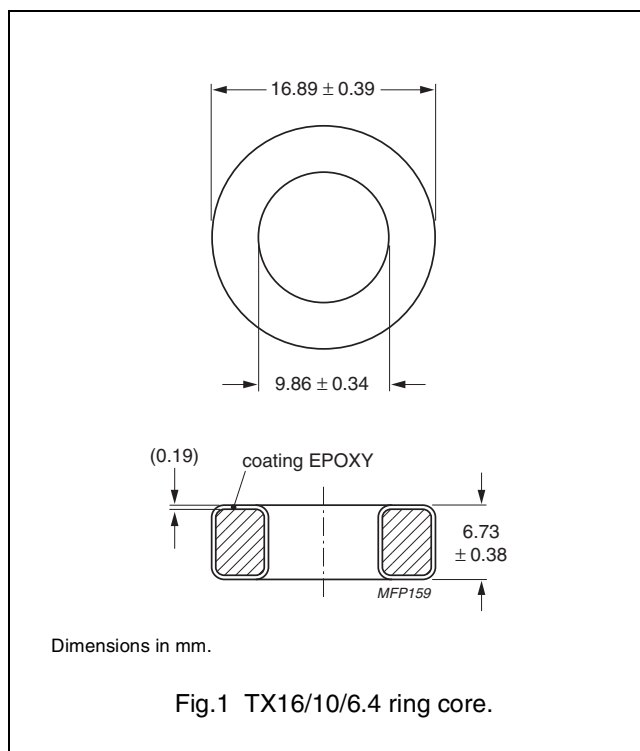
SYMBOL	PARAMETER	VALUE	UNIT	
$\Sigma(I/A)$	core factor (C1)	2.14	mm <sup>-1</sup>	
$V_e$	effective volume	789	mm <sup>3</sup>	
$l_e$	effective length	41.1	mm	
$A_e$	effective area	19.2	mm <sup>2</sup>	
m	mass of core (for $\mu_i$ 125)	MPP	6.78	g
		Sendust	4.98	g
		High-Flux	6.34	g

### Coating

The cores are coated with epoxy. The colour is black (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 - Note 1. Mechanical dimensions : OD ≤ 17.4, ID ≥ 9.53, H ≤ 7.11

GRADE	A <sub>L</sub> (nH)	$\mu_i$	B (mT) at	CORE LOSS (W) at	TYPE NUMBER
			H = 100 kA/m; f = 10 kHz; T = 25 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 25 °C	
MPP	8 ± 8 %	14	≥ 640	1.18	TX16/6.4-M2-A8
	15 ± 8 %	26	≥ 700	0.947	TX16/6.4-M2-A15
	35 ± 8 %	60	≥ 760	0.592	TX16/6.4-M2-A35
	72 ± 8 %	125	≥ 800	0.592	TX16/6.4-M2-A72
	88 ± 8 %	147	≥ 800	0.631	TX16/6.4-M2-A88
	92 ± 8 %	160	≥ 800	0.631	TX16/6.4-M2-A92
	104 ± 8 %	173	≥ 800	0.631	TX16/6.4-M2-A104
	115 ± 8 %	200	≥ 800	1.18	TX16/6.4-M2-A115
	173 ± 8 %	300	≥ 800	1.18	TX16/6.4-M2-A173
Sendust <sup>(1)</sup>	35 ± 8 %	60	≥ 1030	0.675	TX16/6.4-S7-A35-MC
	43 ± 8 %	75	≥ 1040	0.675	TX16/6.4-S7-A43-MC
	52 ± 8 %	90	≥ 1050	0.675	TX16/6.4-S7-A52-MC
	72 ± 8 %	125	≥ 1060	0.675	TX16/6.4-S7-A72-MC
High-Flux	8 ± 8 %	14	≥ 890	1.97	TX16/6.4-H2-A8
	15 ± 8 %	26	≥ 980	1.58	TX16/6.4-H2-A15
	35 ± 8 %	60	≥ 1280	1.42	TX16/6.4-H2-A35
	72 ± 8 %	125	≥ 1370	1.58	TX16/6.4-H2-A72
	88 ± 8 %	147	≥ 1385	1.74	TX16/6.4-H2-A88
	92 ± 8 %	160	≥ 1400	2.76	TX16/6.4-H2-A92

**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
<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.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
<b>Support</b>		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.