# **FERROXCUBE**

# DATA SHEET

# TX17/9.7/6.4 Alloy powder toroids

New data 2008 Sep 01



# Alloy powder toroids

TX17/9.7/6.4

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

#### **Effective core parameters**

SYMBOL	PARAME	VALUE	UNIT	
$\Sigma(I/A)$	core factor (C1)	1.78	mm <sup>-1</sup>	
V <sub>e</sub>	effective volume	960	mm <sup>3</sup>	
l <sub>e</sub>	effective length	41.4	mm	
A <sub>e</sub>	effective area	23.2	mm <sup>2</sup>	
m	mass of core	MPP	8.16	g
	(for μ <sub>i</sub> 125)	Sendust	5.90	g
		High-Flux	7.70	g

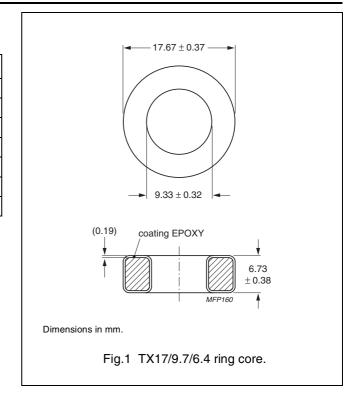
#### Coating

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

			B (mT) at	CORE LOSS (W) at		
GRADE	A <sub>L</sub> (nH)	μί	H = 100 kA/m; f = 10 kHz; T = 25 °C	f = 100 kHz; B = 100 mT; T = 25 °C	TYPE NUMBER	
MPP	10 ± 8 %	14	≥ 640	1.44	TX17/6.4-M2-A10	
	19 ± 8 %	26	≥ 700	1.15	TX17/6.4-M2-A19	
	43 ± 8 %	60	≥ 760	0.720	TX17/6.4-M2-A43	
	89 ± 8 %	125	≥ 800	0.720	TX17/6.4-M2-A89	
	105 ± 8 %	147	≥ 800	0.768	TX17/6.4-M2-A105	
	114 ± 8 %	160	≥ 800	0.768	TX17/6.4-M2-A114	
	$123\pm8~\%$	173	≥ 800	0.768	TX17/6.4-M2-A123	
	$142\pm 8~\%$	200	≥ 800	1.44	TX17/6.4-M2-A142	
	$214\pm8~\%$	300	≥ 800	1.44	TX17/6.4-M2-A214	
Sendust	43 ± 8 %	60	≥ 1030	0.821	TX17/6.4-S7-A43	
	53 ± 8 %	75	≥ 1040	0.821	TX17/6.4-S7-A53	
	64 ± 8 %	90	≥ 1050	0.821	TX17/6.4-S7-A64	
	89 ± 8 %	125	≥ 1060	0.821	TX17/6.4-S7-A89	
High-Flux	10 ± 8 %	14	≥ 890	2.40	TX17/6.4-H2-A10	
	19 ± 8 %	26	≥ 980	1.92	TX17/6.4-H2-A19	
	43 ± 8 %	60	≥ 1280	1.73	TX17/6.4-H2-A43	
	89 ± 8 %	125	≥ 1370	1.92	TX17/6.4-H2-A89	
	105 ± 8 %	147	≥ 1385	2.11	TX17/6.4-H2-A105	
	114 ± 8 %	160	≥ 1400	3.36	TX17/6.4-H2-A114	

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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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