

# DATA SHEET

**TX7.9/4/3.2**  
Alloy powder toroids

New data

2008 Sep 01

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## RING CORES (TOROIDS)

### Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	2.91	mm <sup>-1</sup>
$V_e$	effective volume	110	mm <sup>3</sup>
$l_e$	effective length	17.9	mm
$A_e$	effective area	6.15	mm <sup>2</sup>
m	mass of core (for $\mu_i$ 125)	MPP	0.92 g
		Sendust	0.68 g
		High-Flux	0.87 g

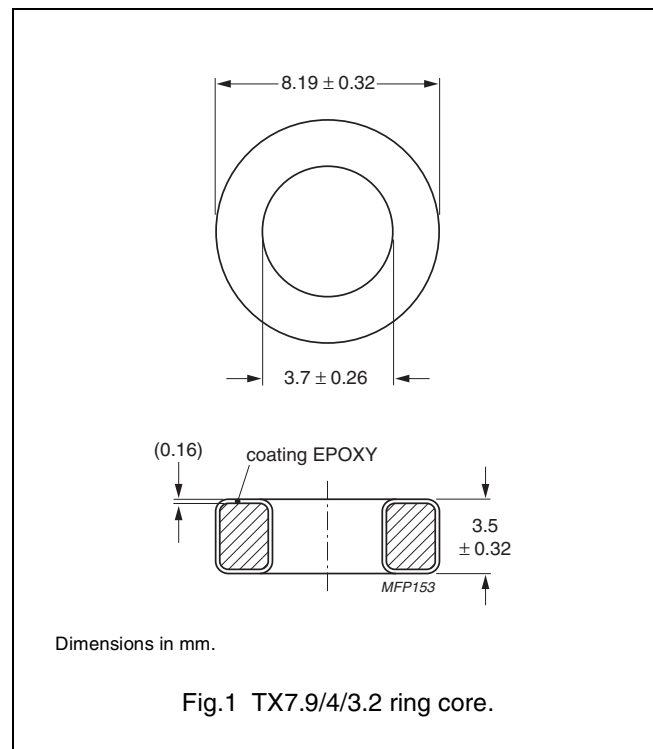
### Coating

The cores are coated with epoxy. The colour is black (Sendust), grey (MPP) or khaki (High-Flux). Maximum operating temperature is 200 °C. Parylene coating is also available (transparent, maximum operating temperature 130 °C).

### Isolation voltage

AC isolation voltage : 1000 V (Parylene : 750 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 ≤ 8.51, ID ≥ 3.43, H ≤ 3.81



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	6 ± 8 %	14	≥ 640	0.165	TX7.9/3.2-M2-A6
	11 ± 8 %	26	≥ 700	0.132	TX7.9/3.2-M2-A11
	25 ± 8 %	60	≥ 760	0.082	TX7.9/3.2-M2-A25
	52 ± 8 %	125	≥ 800	0.082	TX7.9/3.2-M2-A52
	62 ± 8 %	147	≥ 800	0.088	TX7.9/3.2-M2-A62
	66 ± 8 %	160	≥ 800	0.088	TX7.9/3.2-M2-A66
	73 ± 8 %	173	≥ 800	0.088	TX7.9/3.2-M2-A73
	83 ± 8 %	200	≥ 800	0.165	TX7.9/3.2-M2-A83
Sendust <sup>(1)</sup>	124 ± 8 %	300	≥ 800	0.165	TX7.9/3.2-M2-A124
	25 ± 12 %	60	≥ 1030	0.094	TX7.9/3.2-S7-A25-MC
	31 ± 12 %	75	≥ 1040	0.094	TX7.9/3.2-S7-A31-MC
	37 ± 12 %	90	≥ 1050	0.094	TX7.9/3.2-S7-A37-MC
High-Flux	52 ± 12 %	125	≥ 1060	0.094	TX7.9/3.2-S7-A52-MC
	6 ± 8 %	14	≥ 890	0.275	TX7.9/3.2-H2-A6
	11 ± 8 %	26	≥ 980	0.220	TX7.9/3.2-H2-A11
	25 ± 8 %	60	≥ 1280	0.198	TX7.9/3.2-H2-A25
	52 ± 8 %	125	≥ 1370	0.220	TX7.9/3.2-H2-A52
	62 ± 8 %	147	≥ 1385	0.242	TX7.9/3.2-H2-A62
	66 ± 8 %	160	≥ 1400	0.385	TX7.9/3.2-H2-A66

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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
<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.