

# DATA SHEET

## **TN10/6/4** Gapped ferrite toroids

New data

2008 Sep 01

# Gapped ferrite toroids

TN10/6/4

## RING CORES (TOROIDS)

### Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	3.07	mm <sup>-1</sup>
$V_e$	effective volume	188	mm <sup>3</sup>
$l_e$	effective length	24.1	mm
$A_e$	effective area	7.8	mm <sup>2</sup>
m	mass of core	≈ 0.95	g

### Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with "UL 94V-2"; UL file number E 45228 (M).

The colour is white.

Maximum operating temperature is 160 °C.

### Isolation voltage

DC isolation voltage: 1 000 V.

Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.

### Ring core data

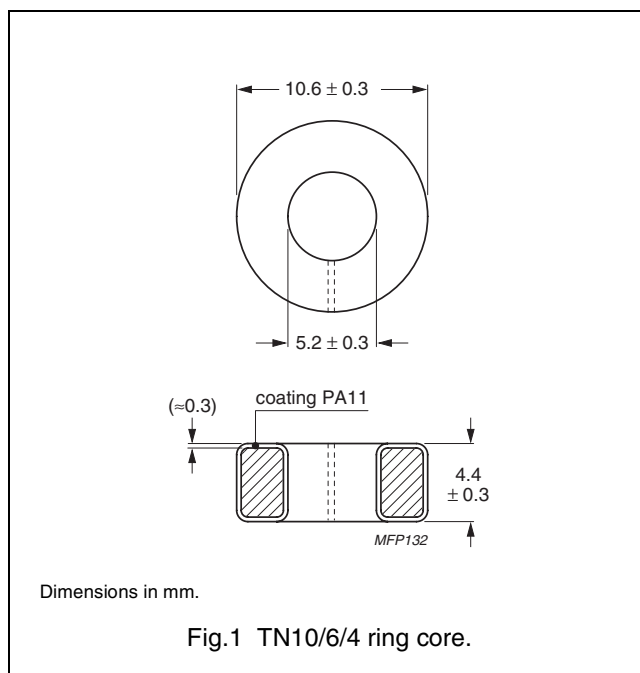
GRADE	$A_L^{(1)}$ (nH)	$\mu_e$	TYPE NUMBER
3C20	48 ± 15%	≈ 90	TN10/4-3C20-A48
	66 ± 15%	≈ 125	TN10/4-3C20-A66
	78 ± 15%	≈ 147	TN10/4-3C20-A78
	84 ± 15%	≈ 160	TN10/4-3C20-A84
	92 ± 15%	≈ 173	TN10/4-3C20-A92

### Note

1. Winding equally distributed over the circumference.

### Properties of cores under power conditions

GRADE	B (mT) at	CORE LOSS (W) at	
	H = 1200 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 100 °C
3C20	~ 400	≤ 0.017	≤ 0.11



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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

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