

# DATA SHEET

**TN20/13/6**  
Iron powder toroids

Supersedes data of September 2004

2008 Sep 01

**RING CORES (TOROIDS)**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	2.44	mm <sup>-1</sup>
$V_e$	effective volume	1020	mm <sup>3</sup>
$l_e$	effective length	49.9	mm
$A_e$	effective area	20.4	mm <sup>2</sup>
m	mass of core	≈7.5	g

**Coating**

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

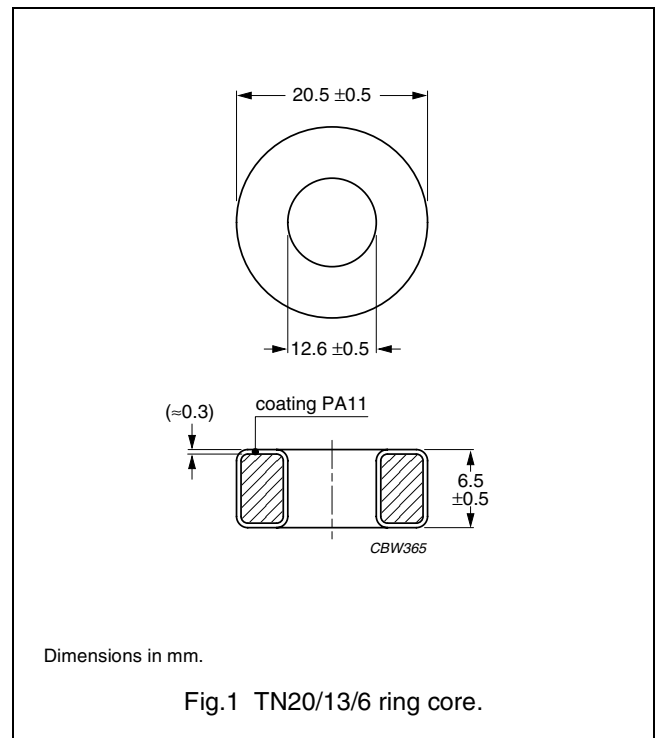
The colour is white.

Maximum operating temperature is 160 °C.

**Isolation voltage**

DC isolation voltage: 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	$A_L$ (nH)	$\mu_i$	TYPE NUMBER
2P40 <sup>sup</sup>	21 ±10%	≈40	TN20/13/6-2P40
2P50 <sup>sup</sup>	26 ±10%	≈50	TN20/13/6-2P50
2P65 <sup>sup</sup>	34 ±10%	≈65	TN20/13/6-2P65
2P80 <sup>sup</sup>	41 ±10%	≈80	TN20/13/6-2P80
2P90 <sup>sup</sup>	44 +10/-15%	≈90	TN20/13/6-2P90

**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**

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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.