

# DATA SHEET

**TX58/41/18**  
Ferrite toroids

Supersedes data of September 2004

2008 Sep 01

**RING CORES (TOROIDS)**

**Effective core parameters**

| SYMBOL        | PARAMETER        | VALUE | UNIT             |
|---------------|------------------|-------|------------------|
| $\Sigma(l/A)$ | core factor (C1) | 1.0   | mm <sup>-1</sup> |
| $V_e$         | effective volume | 23200 | mm <sup>3</sup>  |
| $l_e$         | effective length | 152   | mm               |
| $A_e$         | effective area   | 152   | mm <sup>2</sup>  |
| m             | mass of core     | ≈ 110 | g                |

**Coating**

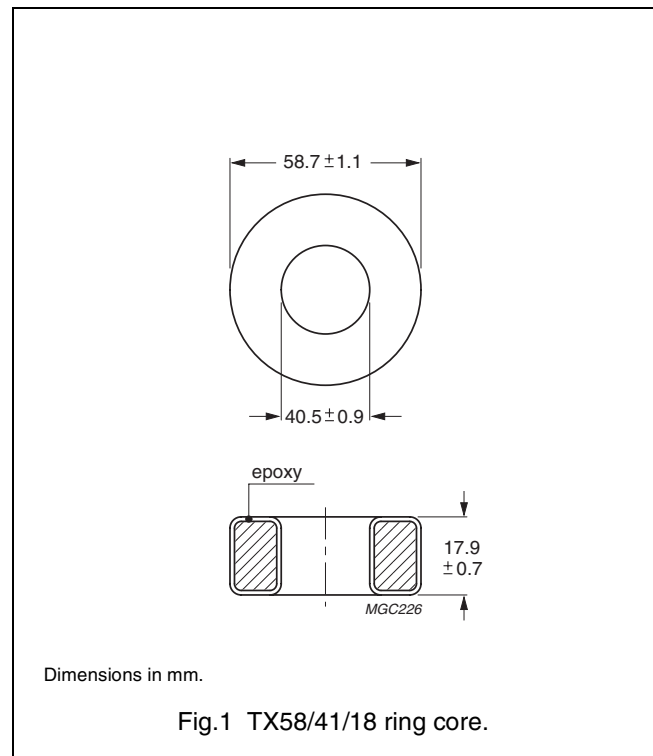
The cores are coated with epoxy, flame retardant in accordance with "UL 94V-0"; UL file number E 235873. The colour is white.

Maximum operating temperature is 200 °C.

**Isolation voltage**

DC isolation voltage: 2000 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                   | $A_L$<br>(nH) | $\mu_i$ | TYPE NUMBER     |
|-------------------------|---------------|---------|-----------------|
| 3C90 <small>des</small> | 2890 ± 25%    | ≈ 2300  | TX58/41/18-3C90 |
| 3C11                    | 5400 ± 25%    | ≈ 4300  | TX58/41/18-3C11 |
| 3E25                    | 6900 ± 25%    | ≈ 5500  | TX58/41/18-3E25 |

**Properties of cores under power conditions**

| GRADE | B (mT) at                                 | CORE LOSS (W) at                         |   |
|-------|---|--|---|
|       | H = 250 A/m;<br>f = 25 kHz;<br>T = 100 °C | f = 25 kHz;<br>B = 200 mT;<br>T = 100 °C | f = 100 kHz;<br>B = 100 mT;<br>T = 100 °C |
| 3C90  | ≥320                                      | ≤ 2.6                                    | ≤ 2.6                                     |




**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.     |
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