

DATA SHEET

TN29/19/15
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) | 0.98 | mm ⁻¹ |
| V_e | effective volume | 5410 | mm ³ |
| l_e | effective length | 73.2 | mm |
| A_e | effective area | 73.9 | mm ² |
| m | mass of core | ≈ 28 | g |

Coating

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

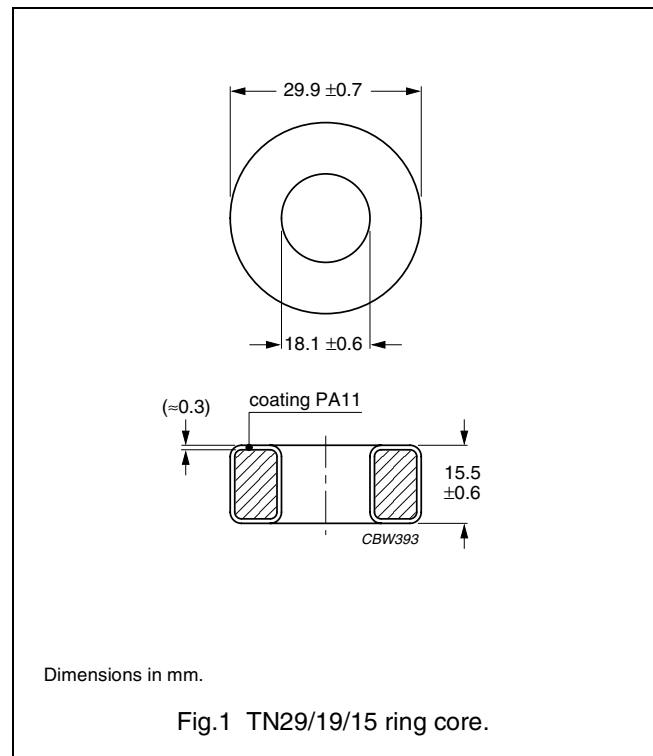
The colour is white.

Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 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 (nH) | μ_i | TYPE NUMBER |
|-------|-------------|---------|-----------------|
| 3C90 | 2960 ± 20% | ≈ 2300 | TN29/19/15-3C90 |
| 3E25 | 7 000 ± 25% | ≈ 5500 | TN29/19/15-3E25 |

Properties of cores under power conditions

| GRADE | B (mT) at | CORE LOSS (W) at | |
|-------|--|--|---|
| | H = 250 A/m; f = 25 kHz; T = 100 °C | f = 25 kHz; \hat{B} = 200 mT; T = 100 °C | f = 100 kHz; \hat{B} = 100 mT; T = 100 °C |
| 3C90 | ≥320 | ≤ 0.61 | ≤ 0.61 |

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 |
|------------------|---|--|
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| Preferred | | These products are recommended for use in current designs and are available via our sales channels. |
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