

DATA SHEET

TX78/49/13
Alloy powder toroids

New data

2008 Sep 01

RING CORES (TOROIDS)

Effective core parameters

| SYMBOL | PARAMETER | VALUE | UNIT | |
|---------------|-----------------------------------|-----------|--------------------|---|
| $\Sigma(l/A)$ | core factor (C1) | 1.13 | mm ⁻¹ | |
| V_e | effective volume | 34700 | mm ³ | |
| l_e | effective length | 200 | mm | |
| A_e | effective area | 177 | mm ² | |
| m | mass of core (for μ_i 125) | MPP | 288 | g |
| | | Sendust | 200 ⁽¹⁾ | g |
| | | High-Flux | 272 | g |

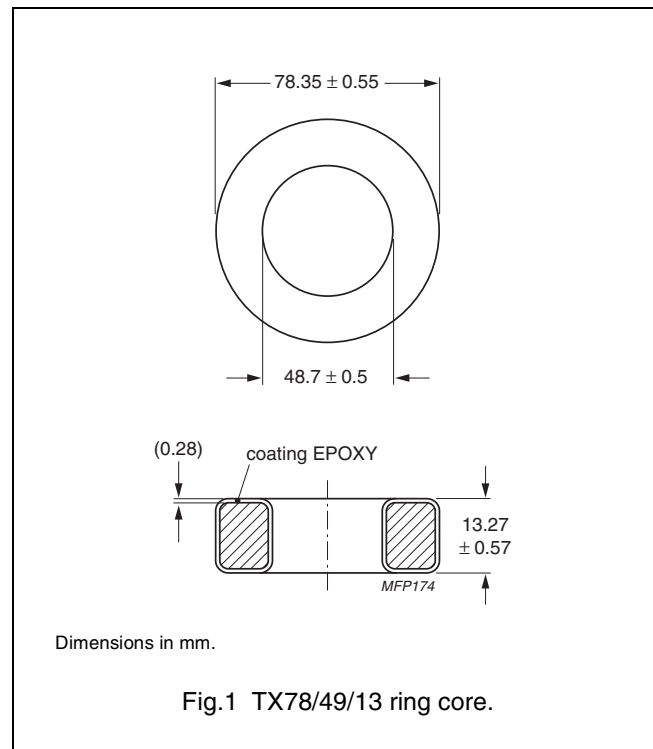
(1) for material permeability 60

Coating

The cores are coated with epoxy. The colour is black (Sendust), grey (MPP) or khaki (High-Flux). Maximum operating temperature is 200 °C.

Isolation voltage

AC isolation voltage : 1000 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 | B (mT) at | CORE LOSS (W) at | TYPE NUMBER |
|------------------------|---------------|---------|---|--|-------------------|
| | | | H = 100 kA/m; f = 10 kHz; T = 25 °C | f = 100 kHz; B = 100 mT; T = 25 °C | |
| MPP | 16 ± 8 % | 14 | ≥ 640 | 52.1 | TX78/13-M2-A16 |
| | 30 ± 8 % | 26 | ≥ 700 | 41.6 | TX78/13-M2-A30 |
| | 68 ± 8 % | 60 | ≥ 760 | 26.0 | TX78/13-M2-A68 |
| | 142 ± 8 % | 125 | ≥ 800 | 26.0 | TX78/13-M2-A142 |
| | 225 ± 8 % | 200 | ≥ 800 | 52.1 | TX78/13-M2-A225 |
| Sendust ⁽¹⁾ | 30 ± 8 % | 26 | ≥ 1000 | 55.5 | TX78/13-S7-A30-MC |
| | 68 ± 8 % | 60 | ≥ 1030 | 29.7 | TX78/13-S7-A68-MC |
| High-Flux | 16 ± 8 % | 14 | ≥ 890 | 86.8 | TX78/13-H2-A16 |
| | 30 ± 8 % | 26 | ≥ 980 | 69.4 | TX78/13-H2-A30 |
| | 68 ± 8 % | 60 | ≥ 1280 | 62.5 | TX78/13-H2-A68 |
| | 142 ± 8 % | 125 | ≥ 1370 | 69.4 | TX78/13-H2-A142 |

Note

1. Mechanical dimensions : OD ≤ 78.9, ID ≥ 48.2, H ≤ 13.84




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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