

**ETD 49/25/16****Core****B66367**

- In accordance with IEC 61185
- Quality assurance per UTE 83313-004/CECC 25 301-004 (material N27)
- For SMPS transformers with optimum weight/performance ratio at small volume
- ETD cores are supplied as single units

**Magnetic characteristics (per set)**

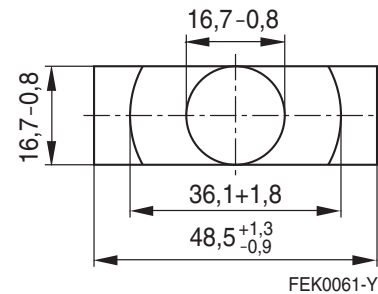
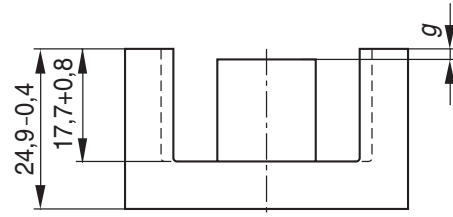
$$\Sigma//A = 0,54 \text{ mm}^{-1}$$

$$l_e = 114 \text{ mm}$$

$$A_e = 211 \text{ mm}^2$$

$$A_{\min} = 209 \text{ mm}^2$$

$$V_e = 24\,100 \text{ mm}^3$$

**Approx. weight 124 g/set****Ungapped**

| Material          | $A_L$ value<br>nH | $\mu_e$ | $A_{L1\min}$<br>nH | $P_V$<br>W/set                       | Ordering code |
|-------------------|-------------------|---------|--------------------|--------------------------------------|---------------|
| N27               | 3700 + 30/- 20 %  | 1590    | 2910               | < 4,59<br>(200 mT, 25 kHz, 100 °C)   | B66367-G-X127 |
| N87               | 3800 + 30/- 20 %  | 1630    | 2910               | < 12,40<br>(200 mT, 100 kHz, 100 °C) | B66367-G-X187 |
| N97 <sup>1)</sup> | 3900 + 30/- 20 %  | 1680    | 2910               | < 10,60<br>(200 mT, 100 kHz, 100 °C) | B66367-G-X197 |

**Gapped**

| Material | $g$<br>mm   | $A_L$ value<br>approx.<br>nH | $\mu_e$ | Ordering code<br>** = 27 (N27)<br>= 87 (N87) |
|----------|-------------|------------------------------|---------|----------------------------------------------|
| N27,     | 0,20 ± 0,02 | 1035                         | 444     | B66367-G200-X1**                             |
| N87      | 0,50 ± 0,05 | 525                          | 225     | B66367-G500-X1**                             |
|          | 1,00 ± 0,05 | 314                          | 135     | B66367-G1000-X1**                            |
|          | 2,00 ± 0,05 | 188                          | 81      | B66367-G2000-X1**                            |

The  $A_L$  value in the table applies to a core set comprising one ungapped core (dimension  $g = 0$ ) and one gapped core (dimension  $g > 0$ ).

1) Preliminary data

**Calculation factors** (for formulas, see “*E cores: general information*”, page 382)

| Material | Relationship between air gap – $A_L$ value |              | Calculation of saturation current |              |               |               |
|----------|--------------------------------------------|--------------|-----------------------------------|--------------|---------------|---------------|
|          | $K1$ (25 °C)                               | $K2$ (25 °C) | $K3$ (25 °C)                      | $K4$ (25 °C) | $K3$ (100 °C) | $K4$ (100 °C) |
| N27      | 314                                        | – 0,741      | 504                               | – 0,847      | 470           | – 0,865       |
| N87      | 314                                        | – 0,741      | 485                               | – 0,796      | 460           | – 0,873       |

Validity range:      $K1, K2: 0,10 \text{ mm} < s < 3,50 \text{ mm}$   
                            $K3, K4: 120 \text{ nH} < A_L < 1160 \text{ nH}$

**Coil former** (magnetic axis horizontal)

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:  
 B66368B: F = max. operating temperature 155 °C, color code black  
 (Valox 420SE0; [E 45329 (M)]; General Electric Plastics)  
 B66368W: H = max. operating temperature 180 °C, color code black  
 (Rynite FR530; [E 69578 (M)]; E I DUPONT DE NEMOURS & CO INC)

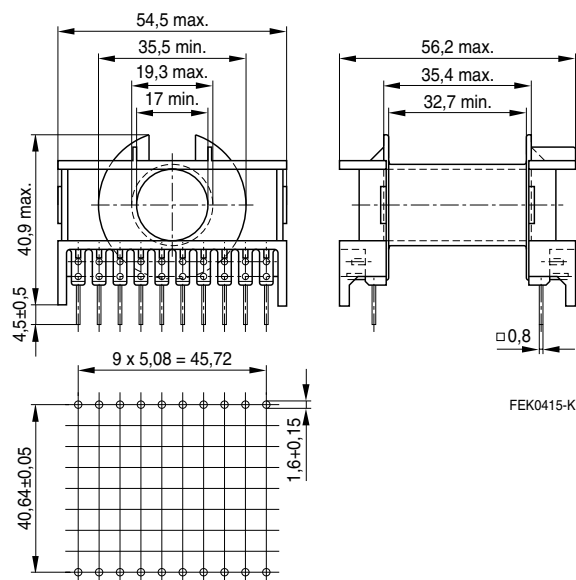
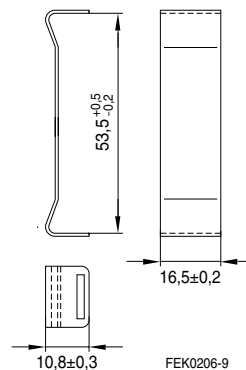
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3.5 s

Winding: see databook 2001, chapter *Processing Notes*, page 158

**Yoke** Material: Stainless spring steel (0.4 mm)

| Sections                                       | A <sub>N</sub> (mm <sup>2</sup> ) | l <sub>N</sub> (mm) | A <sub>R</sub> value (μΩ) | Pins | Ordering code                      |
|------------------------------------------------|-----------------------------------|---------------------|---------------------------|------|------------------------------------|
| 1                                              | 269.4                             | 86                  | 11                        | 20   | B66368B1020T001<br>B66368W1020T001 |
| Yoke (ordering code per piece, 2 are required) |                                   |                     |                           |      | B66368A2000                        |

**Coil former**

**Yoke**

**Hole arrangement**  
 View in mounting direction

© EPCOS AG 2003. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

**Herausgegeben von EPCOS AG**

**Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND**

© EPCOS AG 2000. Alle Rechte vorbehalten. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Mit den Angaben in dieser Broschüre werden die Bauelemente spezifiziert, keine Eigenschaften zugesichert. Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland.

Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

**Published by EPCOS AG**

**Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY**

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.