



E/ELP Cores

Series/Type: E 16/8/5

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B66307F0000X142	B66307F0000X066	2002-08-02	2002-12-31	2003-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

E 16/8/5 (EF 16)

Core

B66307

- In accordance with IEC 61246
- E cores with high permeability for common-mode chokes and broadband applications
- E cores are supplied as single units

Magnetic characteristics (per set)

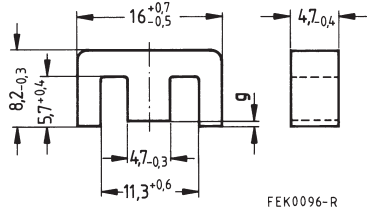
$$\Sigma/A = 1,87 \text{ mm}^{-1}$$

$$l_e = 37,6 \text{ mm}$$

$$A_e = 20,1 \text{ mm}^2$$

$$A_{\min} = 19,4 \text{ mm}^2$$

$$V_e = 756 \text{ mm}^3$$



Approx. weight 3,6 g/set

Ungapped

Material	A_L -Wert nH	μ_e	$A_{L1\min}$ nH	P_V W/set	Ordering code
N30	1400 + 30/- 20 %	2080			B66307-G-X130
N27	950 + 30/- 20 %	1410	670	< 0,14 (200 mT, 25 kHz, 100 °C)	B66307-G-X127
N87	1000 + 30/- 20 %	1490	670	< 0,36 (200 mT, 100 kHz, 100 °C)	B66307-G-X187
T42	5100 ± 30 %	7570			B66307-F-X142

Gapped

Material	g mm	A_L value approx. nH	μ_e	Ordering code ** = 27 (N27) = 87 (N87)
N27,	0,06 ± 0,01	303	450	B66307-G60-X1**
N87	0,10 ± 0,02	212	315	B66307-G100-X1**
	0,50 ± 0,05	69	102	B66307-G500-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 $g > 0$).

E 16/8/5 (EF 16)

Core

B66307

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	42,2	– 0,701	57,0	– 0,847	52,1	– 0,865
N87	42,2	– 0,701	57,8	– 0,796	50,4	– 0,873

Validity range: $K1, K2$: $0,05 \text{ mm} < s < 1,50 \text{ mm}$
 $K3, K4$: $30 \text{ nH} < A_L < 330 \text{ nH}$

Coil former (magnetic axis horizontal or vertical)

Material: GFR polyterephthalate (UL 94 V-0, insulation class to IEC 60085:
F \triangleq max. operating temperature 155 °C), color code black

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 "Processing Notes", page 159

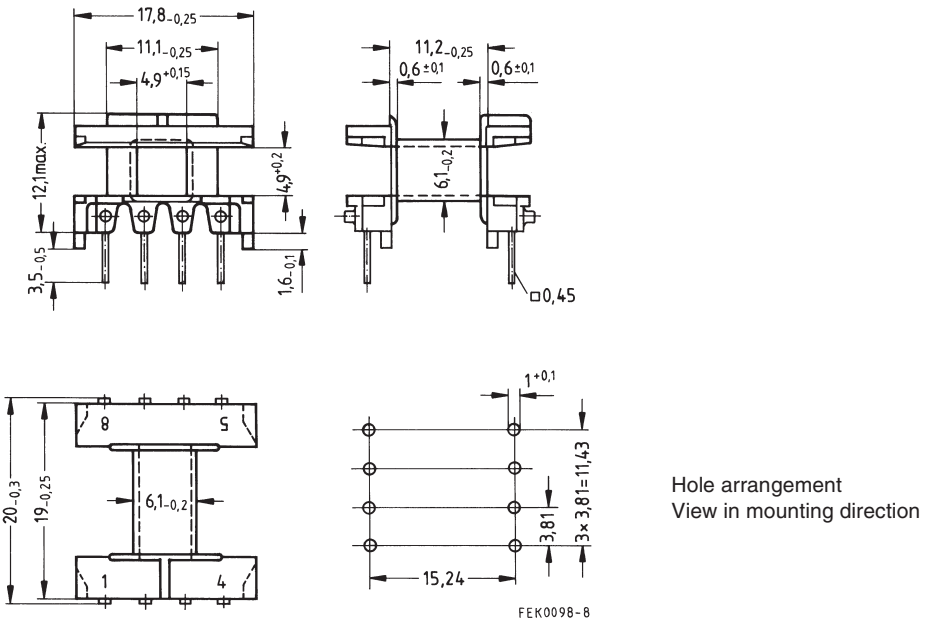
Squared pins

Yoke

Material: Stainless spring steel (0,2 mm)

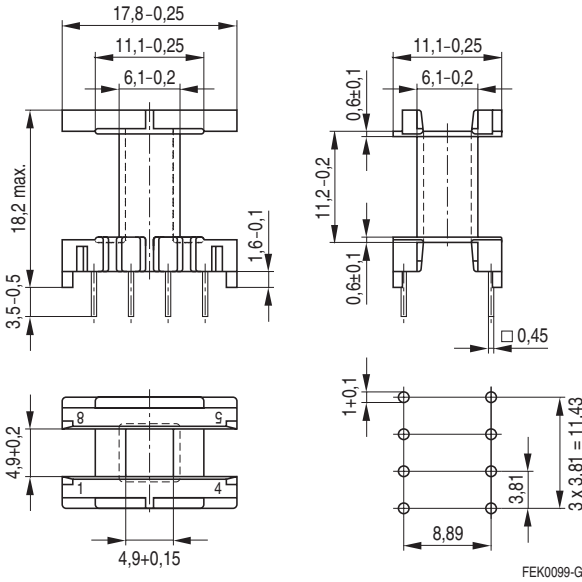
Coil former						Ordering code
Figure	Sections	A_N mm ²	l_N mm	A_R value $\mu\Omega$	Pins	
1	1	22,3	34	52,4	8	B66308-A1108-T1
2	1	22,3	34	52,4	8	B66308-J1108-T1
Yoke (ordering code per piece, 2 are required)						B66308-A2010

Figure 1, horizontal version



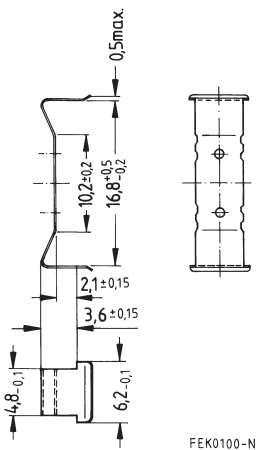
Hole arrangement
View in mounting direction

Figure 2, vertical version



Hole arrangement
View in mounting direction

Yoke



Herausgegeben von EPCOS AG

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