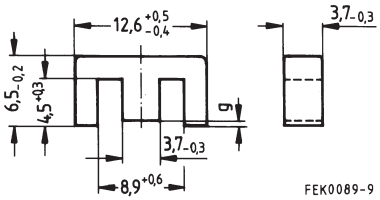
E 13/7/4 (EF 12,6)

Core B66305

- In accordance with IEC 61246
- For miniature transformers
- Available with SMD coil former
- E cores with high permeability for common-mode chokes and broadband applications
- E cores are supplied as single units



Magnetic characteristics (per set)

$\Sigma l/A$ = 2,39 mm^{-1}
l_e = 29,6 mm
A_e = 12,4 mm^2
A_{min} = 12,2 mm^2
V_e = 367 mm^3

Approx. weight 2 g/set

Ungapped

Material	A_L value nH	μ_e	A_{L1min} nH	P_V W/set	Ordering code
N30	1000 + 30/– 20 %	1900			B66305-G-X130
N27	800 + 30/– 20 %	1510	530	< 0,40 (200 mT, 100 kHz, 100 °C)	B66305-G-X127
N87	850 + 30/– 20 %	1620	530	< 0,20 (200 mT, 100 kHz, 100 °C)	B66305-G-X187
T42	3600 ± 30 %	6830			B66305-F-X142

Gapped

Material	g mm	A_L value approx. nH	μ_e	Ordering code
N27	0,04 ± 0,01	250	454	B66305-G40-X127

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

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	28,4	– 0,676	36,5	– 0,847	33,2	– 0,865
N87	28,4	– 0,676	37,5	– 0,796	32,1	– 0,873

Validity range: *K1*, *K2*: 0,03 mm < *s* < 1,00 mm
K3, *K4*: 30 nH < A_L < 260 nH

Coil former (magnetic axis horizontal or vertical)

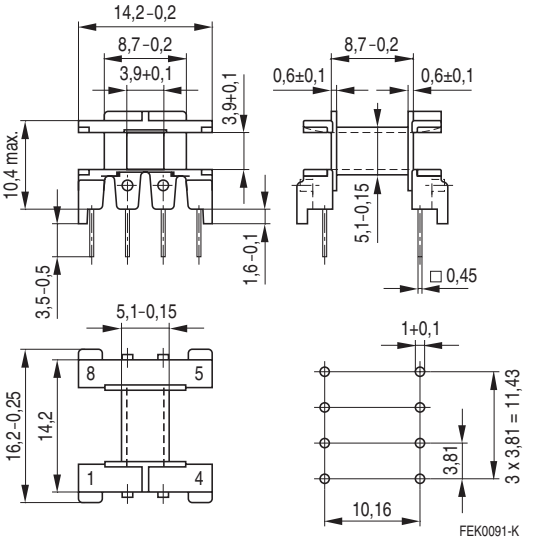
Material: GFR polyterephthalate (UL 94 V-0, insulation class to IEC 60085: F ≙ max. operating temperature 155 °C), color code black
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s
Winding: see *"Processing Notes"*, page 159
Squared pins

Yoke

Material: Stainless spring steel (0,2 mm)

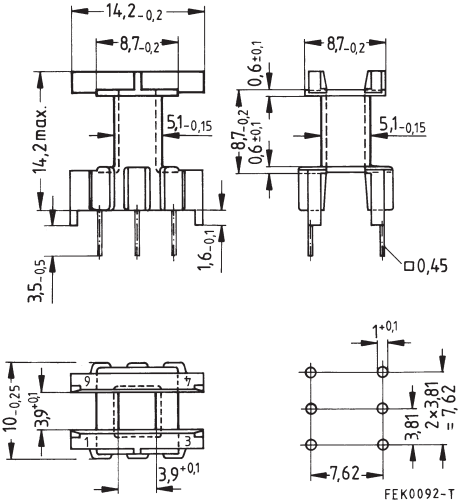
Coil former						Ordering code
Figure	Sections	A_N mm²	l_N mm	A_R value μΩ	Pins	
1	1	11,6	27,2	80,6	8	B66202-A1108-T1
2	1	11,6	27,2	80,6	6	B66202-J1106-T1
Yoke (ordering code per piece, 2 are required)						B66202-A2010

Figure 1, horizontal version



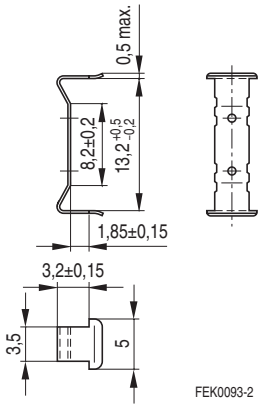
Hole arrangement
View in mounting direction

Figure 2, vertical version



Hole arrangement
View in mounting direction

Yoke



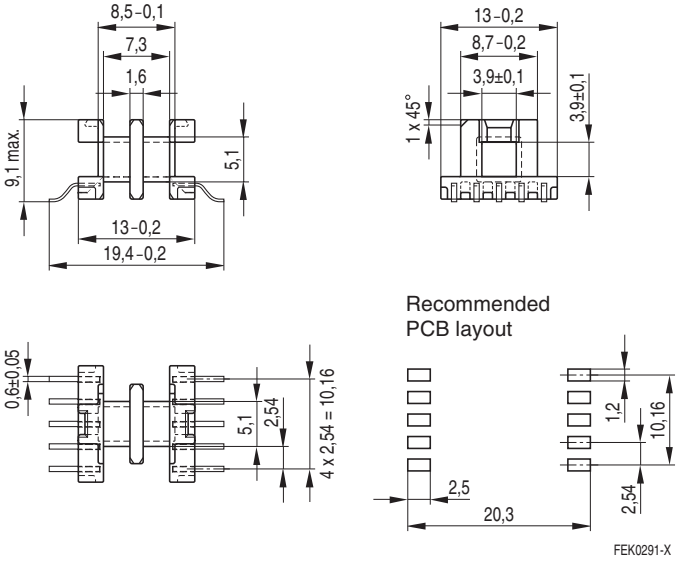
SMD

SMD coil former with gullwing terminals

Material: GFR liquid crystal polymer (UL 94 V-0, insulation class to IEC 60085: F ≙ max. operating temperature 155 °C), color code black
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 350 °C, 1 s
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s
permissible soldering temperature for wire-wrap connection on coil former: 400 °C, 1 s
Winding: see *"Processing Notes"*, page 160

Sections	A_N mm²	l_N mm	A_R value μΩ	Terminals	Ordering code
1	13,0	27	71	10	B66306-C1010-T1
2	10,2	27	91	10	B66306-C1010-T2

Coil former



Cover plate

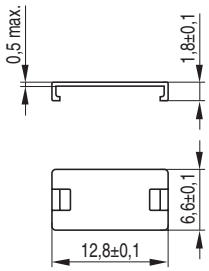
- For stamping and for improved processing on assembly machines
- See under coil former for material and resistance to soldering heat

Yoke (on request)

Material: Nickel silver (0,2 mm)

	Ordering code
Cover plate	B66414-A7000
Yoke	B66202-J2001

Cover plate



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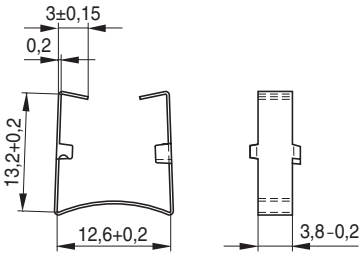
Yoke



FEK0396-A

Herausgegeben von EPCOS AG
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Published by EPCOS AG
Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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