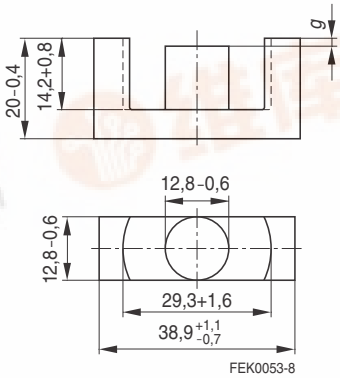
EPCOS

ETD 39/20/13

Core **B66363**

- In accordance with IEC 61185
- Quality assurance per UTE 83313-002/ CECC 25 301-002 (material N27)
- For SMPS transformers with optimum weight/performance ratio at small volume
- ETD cores are supplied as single units



Magnetic characteristics (per set)

$\Sigma l/A$ = 0,74 mm^{-1}
l_e = 92,2 mm
A_e = 125 mm^2
A_{min} = 123 mm^2
V_e = 11 500 mm^3

Approx. weight 60 g/set

Ungapped

Material	A_L value nH	μ_e	A_{L1min} nH	P_V W/set	Ordering code
N27	2550 + 30/– 20 %	1500	2140	< 2,22 (200 mT, 25 kHz, 100 °C)	B66363-G-X127
N87	2700 + 30/– 20 %	1600	2140	< 6,00 (200 mT, 100 kHz, 100 °C)	B66363-G-X187
N97 1)	2800 + 30/– 20 %	1650	2140	< 5,10 (200 mT, 100 kHz, 100 °C)	B66363-G-X197

Gapped

Material	g mm	A_L value approx. nH	μ_e	Ordering code ** = 27 (N27) = 87 (N87)
N27, N87	0,10 ± 0,02	1062	622	B66363-G100-X1**
	0,20 ± 0,02	639	374	B66363-G200-X1**
	0,50 ± 0,05	326	191	B66363-G500-X1**
	1,00 ± 0,05	196	115	B66363-G1000-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	196	– 0,734	308	– 0,847	287	– 0,865
N87	196	– 0,734	300	– 0,796	280	– 0,873

Validity range: *K1*, *K2*: 0,10 mm < *s* < 3,00 mm
K3, *K4*: 90 nH < A_L < 850 nH

Coil former (magnetic axis horizontal)

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:
B66364B: F = max. operating temperature 155 °C, color code black
(Valox 420SE0; [E 45329 (M)]; General Electric Plastics)
B66364W: 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

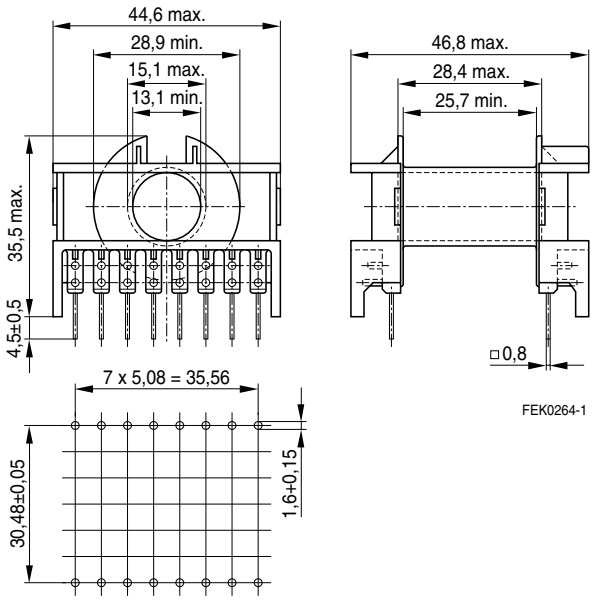
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3.5 s

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

Yoke Material: Stainless spring steel (0.4 mm)

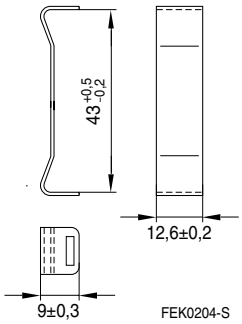
Sections	A_N (mm²)	l_N (mm)	A_R value (μΩ)	Pins	Ordering code
1	178	69	13.3	16	B66364B1016T00 B66364W1016T0
Yoke (ordering code per piece, 2 are required)					B66364A2000

Coil former



Hole arrangement
View in mounting direction

Yoke



Herausgegeben von EPCOS AG
Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

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

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.