



## RM Cores

**Series/Type:**      **RM 12**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B65816D20050000		2004-10-18	2005-03-31	2005-09-30

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**RM 12**
**Core**
**B65815**

- In accordance with IEC 60431
- Optimized core cross section and increased thickness of base for power applications
- Without center hole
- RM cores are supplied in sets

**Magnetic characteristics (per set)**

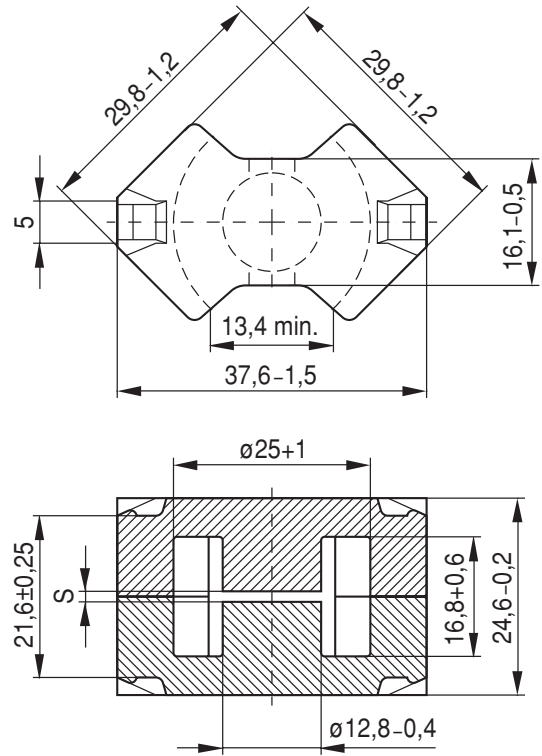
$$\Sigma/A = 0,39 \text{ mm}^{-1}$$

$$l_e = 57 \text{ mm}$$

$$A_e = 146 \text{ mm}^2$$

$$A_{\min} = 125 \text{ mm}^2$$

$$V_e = 8340 \text{ mm}^3$$

**Approx. weight 45 g/set**


FRM0300-E

**Gapped**

Material	$A_L$ value	$s$ approx. mm	$\mu_e$	Ordering code
	nH			-E without center hole
N41	$160 \pm 3 \%$	1,30	50	B65815-E160-A41
	$250 \pm 3 \%$	0,70	78	B65815-E250-A41
	$400 \pm 3 \%$	0,35	124	B65815-E400-J41
	$1000 \pm 5 \%$	0,12	310	B65815-E1000-J41

**Ungapped**

Material	$A_L$ value nH	$\mu_e$	$A_{L1min}$ nH	$P_V$ W/set	Ordering code -E w/o center hole
N30	8400 + 30/- 20 %	2610			B65815-E-R30
N49	3700 + 30/- 20 %	1090	1930	< 1,41 (50 mT, 500 kHz, 100 °C)	B65815-E-R49
N87	5300 + 30/- 20 %	1640	2900	< 4,50 (200 mT, 100 kHz, 100 °C)	B65815-E-R87
N97 <sup>1)</sup>	5300 + 30/- 20 %	1640	2900	< 3,60 (200 mT, 100 kHz, 100 °C)	B65815-E-R97
N41	6000 + 30/- 20 %	1860	2900	< 1,50 (200 mT, 25 kHz, 100 °C)	B65815-E-R41

1) Preliminary data

**Coil former**

Material: GFR thermosetting plastic (UL 94 V-0, insulation class to IEC 60085:

$H \triangleq$  max. operating temperature 180 °C), color code black

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

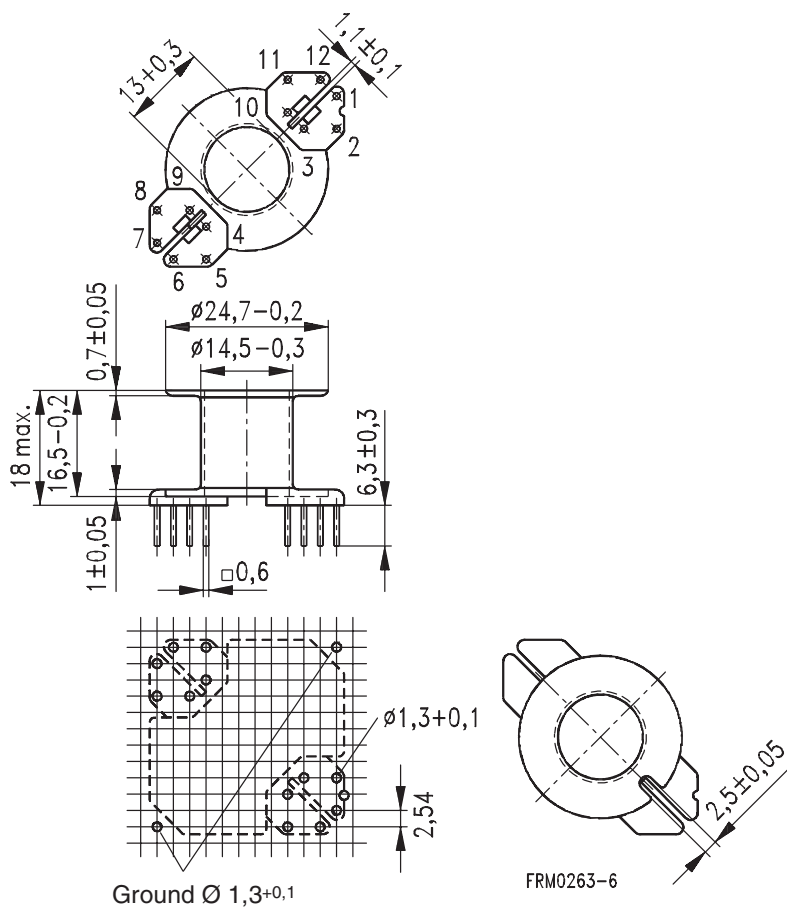
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s

Winding: see "Processing Notes", page 153

Squared pins

For matching clamp and insulating washers see page 248

Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	Ordering code
1	73	61	28,7	12	B65816-N1012-D1



Ground  $\varnothing 1,3 \pm 0,1$

Hole arrangement

View in mounting direction

**Coil former for power applications**

Material: GFR polyterephthalate (UL 94 V-0, insulation class to IEC 60085:

F  $\hat{=}$  max. operating temperature 155 °C), color code black

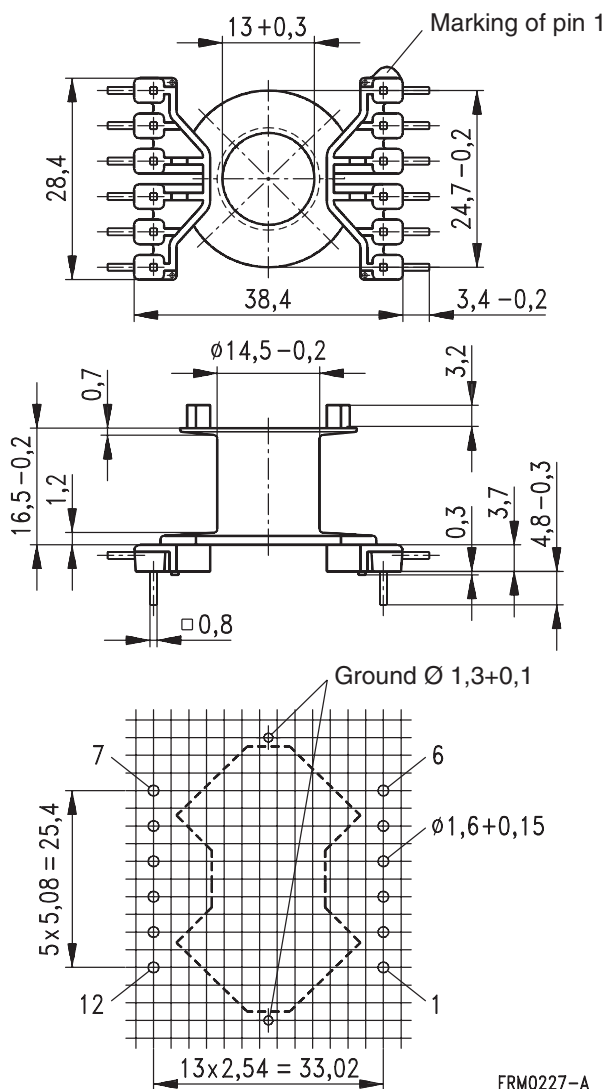
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s

Winding: see "Processing Notes", page 153

For matching clamp and insulating washer 1 see page 248

Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	Ordering code
1	72	61	28,7	12	B65816-C1512-T1



Hole arrangement  
View in mounting direction  
(Note half pitch!)

**Clamp**

- With ground terminal, made of stainless spring steel (tinned), 0,45 mm thick
- Solderability to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

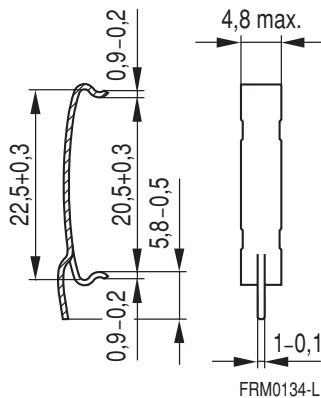
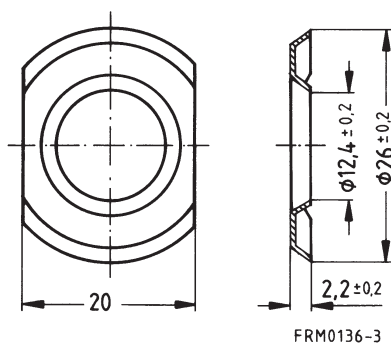
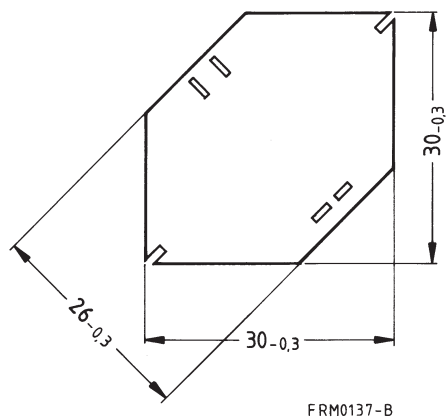
**Insulating washer 1** between core and coil former

- For tolerance compensation and for insulation
- Made of polycarbonate (UL 94 V-0, insulation class to IEC 60085: E  $\geq$  120 °C), 0,1 mm thick

**Insulating washer 2** for double-clad PCBs

- Made of polycarbonate (UL 94 V-0, insulation class to IEC 60085: E  $\geq$  120 °C), 0,3 mm thick

	Ordering code
Clamp (ordering code per piece, 2 are required)	B65816-A2002
Insulating washer 1 (reel packing, PU = 1 reel)	B65816-B5000
Insulating washer 2 (bulk)	B65816-D2005

**Clamp**

**Insulating washer 1**

**Insulating washer 2**


**Herausgegeben von EPCOS AG**

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