

DATA SHEET

RM7/I RM cores and accessories

Product specification
File under Magnetic Products, MA01

1997 Nov 21

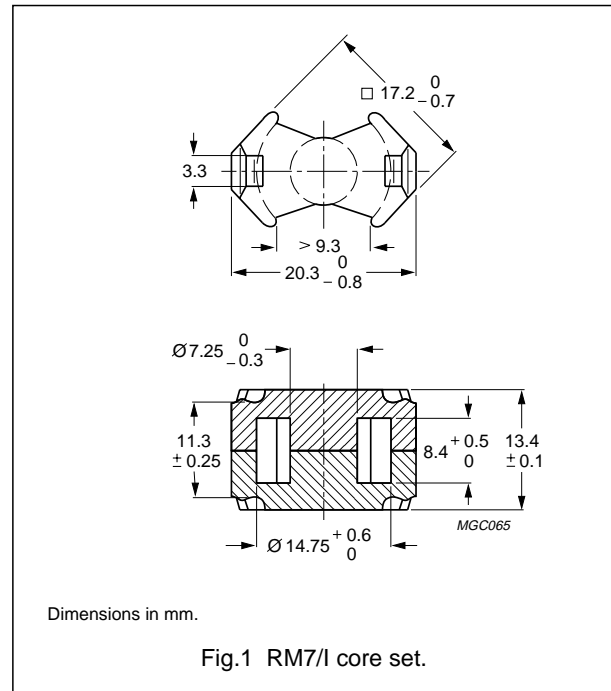
RM cores and accessories

RM7/I

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.680	mm^{-1}
V_e	effective volume	1325	mm^3
l_e	effective length	30.0	mm
A_e	effective area	44.1	mm^2
A_{\min}	minimum area	39.6	mm^2
m	mass of set	≈ 7.7	g



Core sets for general purpose transformers and power applications

Clamping force 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3B8 ^{sup}	$160 \pm 3\%$	≈ 89	≈ 400	RM7/I-3B8-A160
	$250 \pm 3\%$	≈ 139	≈ 200	RM7/I-3B8-A250
	$3000 \pm 25\%$	≈ 1670	≈ 0	RM7/I-3B8
3C85 ^{sup}	$100 \pm 3\%$	≈ 56	≈ 800	RM7/I-3C85-A100
	$160 \pm 3\%$	≈ 89	≈ 400	RM7/I-3C85-A160
	$250 \pm 3\%$	≈ 139	≈ 200	RM7/I-3C85-A250
	$2700 \pm 25\%$	≈ 1500	≈ 0	RM7/I-3C85
3C90 ^{sup}	$2700 \pm 25\%$	≈ 1500	≈ 0	RM7/I-3C90
3F3 ^{sup}	$100 \pm 3\%$	≈ 56	≈ 800	RM7/I-3F3-A100
	$160 \pm 3\%$	≈ 89	≈ 400	RM7/I-3F3-A160
	$250 \pm 3\%$	≈ 139	≈ 200	RM7/I-3F3-A250
	$2500 \pm 25\%$	≈ 1390	≈ 0	RM7/I-3F3

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Core sets of high permeability grades

Clamping force 25 ± 10 N.

GRADE	A_L (nH)	μ_e	TYPE NUMBER
3E1 ^{sup}	$4750 \pm 25\%$	≈ 2570	RM7/I-3E1
3E4 ^{sup}	$6600 +40/-30\%$	≈ 3590	RM7/I-3E4
3E5 ^{sup}	$10000 +40/-30\%$	≈ 5370	RM7/I-3E5

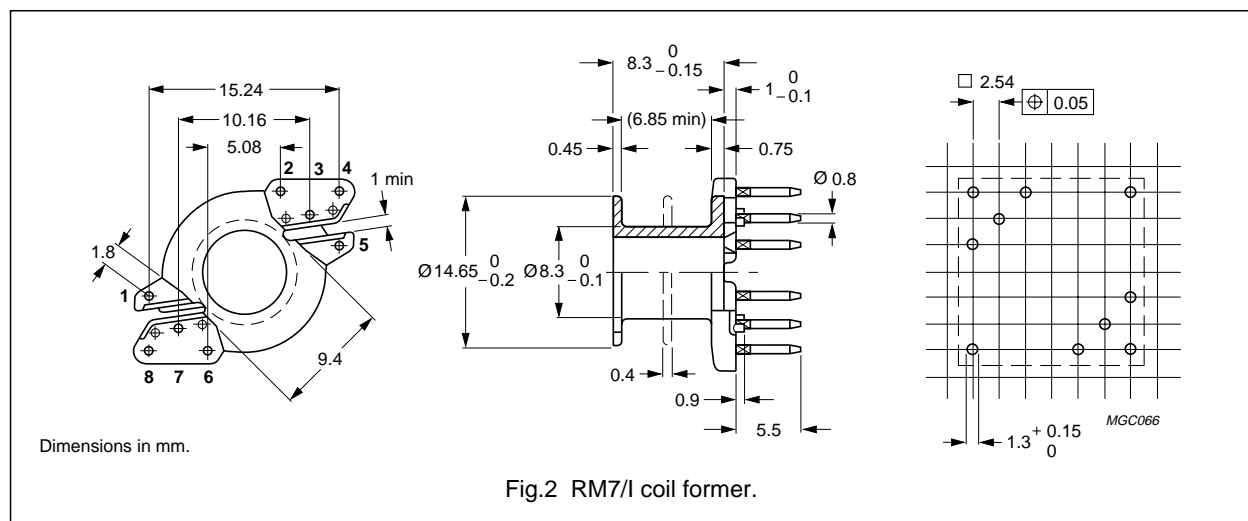
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B} = 200$ mT; T = 100 °C	f = 100 kHz; $\hat{B} = 100$ mT; T = 100 °C	f = 400 kHz; $\hat{B} = 50$ mT; T = 100 °C
3B8	≥ 315	≤ 0.40	–	–
3C85	≥ 315	≤ 0.20	≤ 0.24	–
3C90	≥ 315	≤ 0.15	≤ 0.15	–
3F3	≥ 315	–	≤ 0.15	≤ 0.25

COIL FORMER

General data

PARAMETER	SPECIFICATION
Coil former material	phenolformaldehyde (PF), glass-reinforced, flame retardant in accordance with UL 94V-0; UL file number E167521(M)
Pin material	copper-tin alloy (CuSn), tin-lead alloy (SnPb) plated
Maximum operating temperature	180 °C, IEC 85 class H
Resistance to soldering heat	"IEC 68-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 68-2-20", Part 2, Test Ta, method 1



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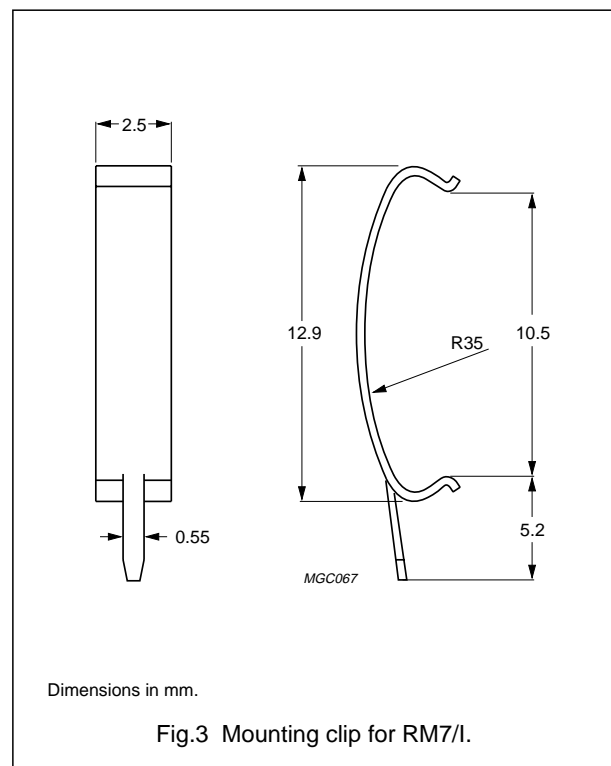
Winding data for RM7/I coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm ²)	WINDING WIDTH (mm)	TYPE NUMBER
1	4	1, 2, 5, 6	35	21	6.85	CSV-RM7-1S-4P
1	8	all	35	21	6.85	CSV-RM7-1S-8P
2	8	all	35	2 × 9.8	2 × 3.2	CSV-RM7-2S-8P

MOUNTING PARTS

General data

ITEM	SPECIFICATION
Clamping force	≈20 N
Clip material	steel
Clip plating	tin-lead alloy (SnPb)
Solderability	"IEC 68-2-20", Part 2, Test Ta, method 1
Type number	CLI/P-RM7



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DEFINITIONS

Data sheet status	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

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