DATA SHEET

RM4
RM, RM/I, RM/ILP cores and accessories

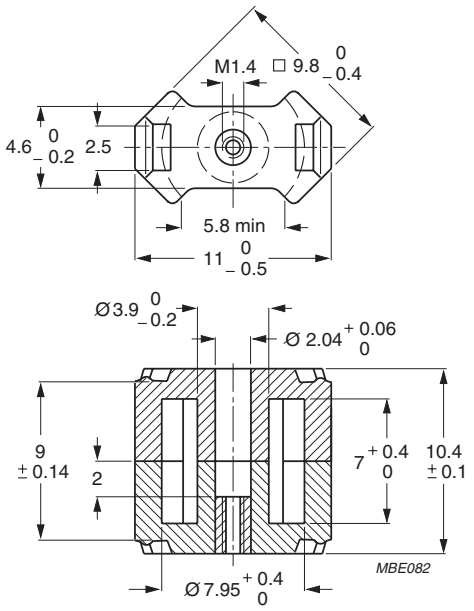
Supersedes data of September 2004 2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.94	mm^{-1}
V_e	effective volume	230	mm^3
l_e	effective length	21.3	mm
A_e	effective area	11.0	mm^2
A_{min}	minimum area	8.1	mm^2
m	mass of set	≈ 1.5	g



Dimensions in mm.

Fig.1 RM4 core set.

Core sets for filter applications

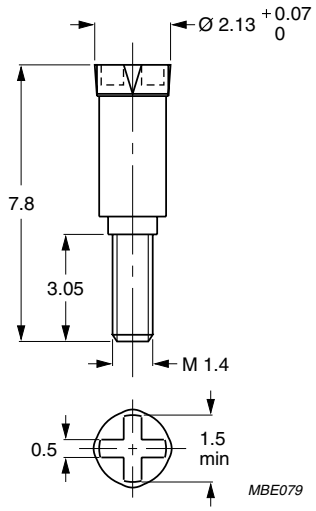
Clamping force for A_L measurements, 20 ±10 N.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μm)	TYPE NUMBER (WITH NUT)	TYPE NUMBER (WITHOUT NUT)
3D3 sup	40 ±3%	≈ 62	≈ 470	RM4-3D3-E40/N	RM4-3D3-E40
	63 ±3%	≈ 97	≈ 250	RM4-3D3-A63/N	RM4-3D3-A63
	400 ±25%	≈ 616	≈ 0	–	RM4-3D3
3H3 sup	63 ±3%	≈ 97	≈ 280	RM4-3H3-A63/N	RM4-3H3-A63
	100 ±3%	≈ 154	≈ 160	RM4-3H3-A100/N	RM4-3H3-A100
	160 ±3%	≈ 247	≈ 85	RM4-3H3-A160/N	RM4-3H3-A160
	900 ±25%	≈ 1390	≈ 0	–	RM4-3H3

INDUCTANCE ADJUSTERS

General data

PARAMETER	SPECIFICATION
Material of head and thread	polypropylene (PP), glass fibre reinforced
Maximum operating temperature	125 °C



Dimensions in mm.

Fig.2 RM4 inductance adjuster.

Inductance adjuster selection chart sup (applies to all types)

GRADE	A_L (nH)	TYPES FOR LOW ADJUSTMENT	ΔL/L %(1)	TYPES FOR MEDIUM ADJUSTMENT	ΔL/L %(1)	TYPES FOR HIGH ADJUSTMENT	ΔL/L %(1)
3H3; 3D3	63	–	–	–	–	ADJ-RM4/RM5-RED	27
	100	–	–	ADJ-RM4/RM5-RED	17	ADJ-RM4/RM5-BROWN	25
	160	ADJ-RM4/RM5-GREEN	5	ADJ-RM4/RM5-BROWN	14	ADJ-RM4/RM5-GREY	26
	250	ADJ-RM4/RM5-RED	5	ADJ-RM4/RM5-GREY	12	ADJ-RM4/RM5-BLACK	17

Note

1. Maximum adjustment range.

COIL FORMER

General data

PARAMETER	SPECIFICATION
Coil former material	polyester (UP), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E61040(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	180 °C, *"IEC 60085"*, class H
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1

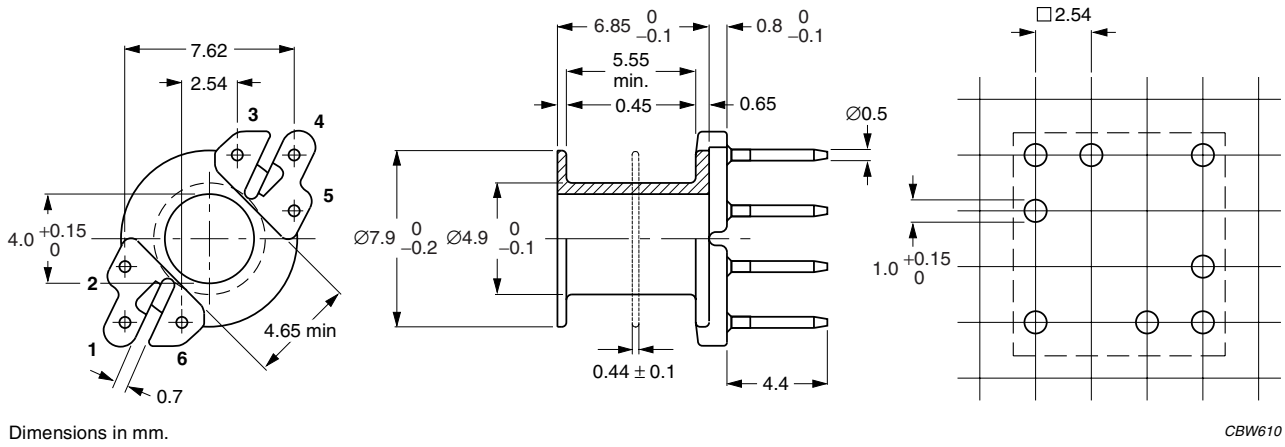


Fig.2 RM4 coil former.

Winding data and area product for RM4 coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm^2)	WINDING WIDTH (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	6	all	20	7.4	5.55	81.4	CSV-RM4-1S-6P[1]
1	5	1, 2, 3, 5, 6	20	7.4	5.55	81.4	CSV-RM4-1S-5P[1]
2	5	1, 2, 3, 5, 6	20	7	2 x 2.55	77.0	CSV-RM4-2S-5P

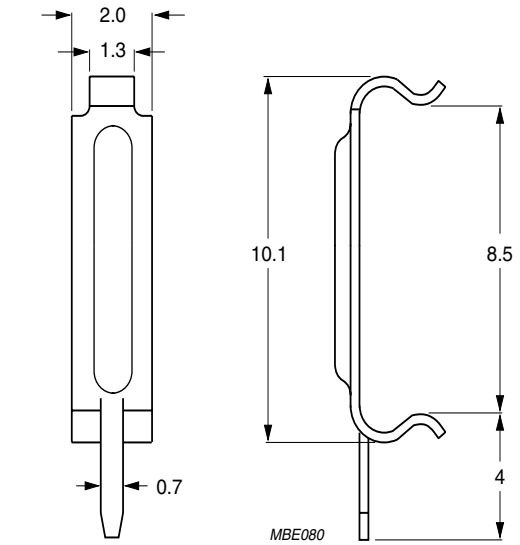
Note

1. Also available with post-inserted pins.

MOUNTING PARTS

General data

ITEM	SPECIFICATION
Clamping force	≈10 N
Clip material	steel
Clip plating	silver (Ag)
Solderability	*"IEC 60068-2-20",* Part 2, Test Ta, method 1
Type number	CLI/P-RM4/5



Dimensions in mm.

Fig.3 Mounting clip for RM4.

DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype	prot	These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
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Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support	sup	These products are **not** recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.