DATA SHEET

RM5
RM cores and accessories

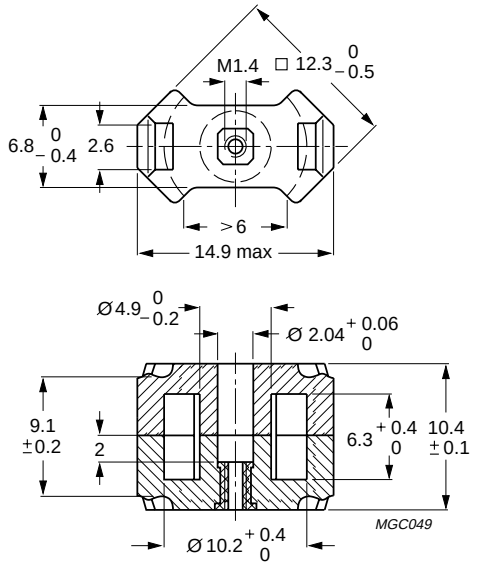
Supersedes data of February 2002 2004 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.01	mm^{-1}
V_e	effective volume	450	mm^3
l_e	effective length	21.4	mm
A_e	effective area	21.2	mm^2
A_{min}	minimum area	14.8	mm^2
m	mass of set	≈ 3.1	g



Dimensions in mm.

Fig.1 RM5 core set.

Core sets for filter applications

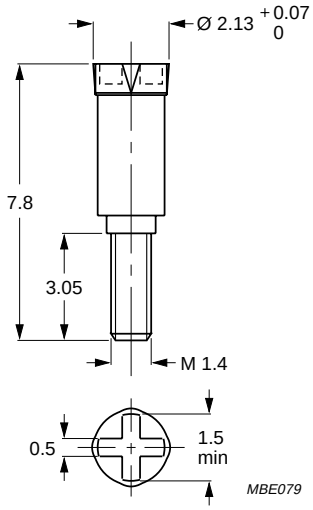
Clamping force for A_L measurements, 25 ±10 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER (WITH NUT)	TYPE NUMBER (WITHOUT NUT)
3D3 sup	40 ±3%	≈32	≈990	RM5-3D3-E40/N	RM5-3D3-E40
	63 ±3%	≈51	≈540	RM5-3D3-E63/N	RM5-3D3-E63
	100 ±3%	≈80	≈300	RM5-3D3-E100/N	RM5-3D3-E100
	800 ±25%	≈640	≈0	–	RM5-3D3
3H3 sup	160 ±3%	≈129	≈180	RM5-3H3-A160/N	RM5-3H3-A160
	250 ±3%	≈201	≈110	RM5-3H3-A250/N	RM5-3H3-A250
	315 ±3%	≈253	≈80	RM5-3H3-A315/N	RM5-3H3-A315
	400 ±5%	≈321	≈60	RM5-3H3-A400/N	RM5-3H3-A400
	1650 ±25%	≈1310	≈0	–	RM5-3H3

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 RM5 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	63	–	–	–	–	ADJ-RM4/RM5-RED	23
	100	–	–	ADJ-RM4/RM5-RED	15	ADJ-RM4/RM5-BROWN	24
	160	ADJ-RM4/RM5-RED	11	ADJ-RM4/RM5-BROWN	15	ADJ-RM4/RM5-GREY	28
	250	ADJ-RM4/RM5-RED	6	ADJ-RM4/RM5-BROWN	10	ADJ-RM4/RM5-GREY	17
	315	ADJ-RM4/RM5-BROWN	7	ADJ-RM4/RM5-GREY	13	–	–
	400	ADJ-RM4/RM5-BROWN	5	ADJ-RM4/RM5-BLACK	14	–	–
3D3	40	–	–	ADJ-RM4/RM5-GREEN	15	ADJ-RM4/RM5-RED	30
	63	–	–	–	–	ADJ-RM4/RM5-RED	20
	100	–	–	ADJ-RM4/RM5-RED	14	–	–

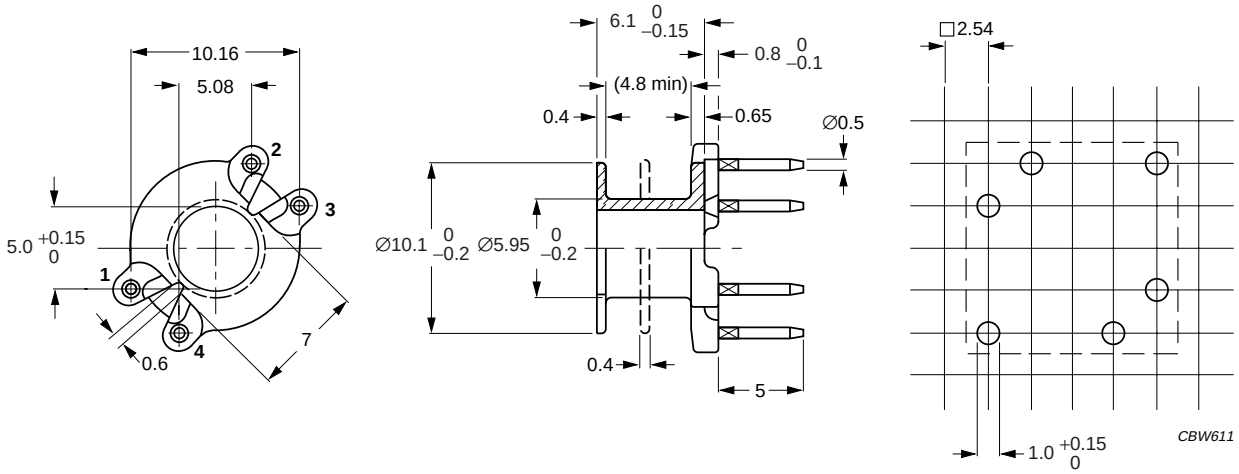
Note

1. Maximum adjustment range.

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, transition to lead-free (Sn) ongoing
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



Dimensions in mm.

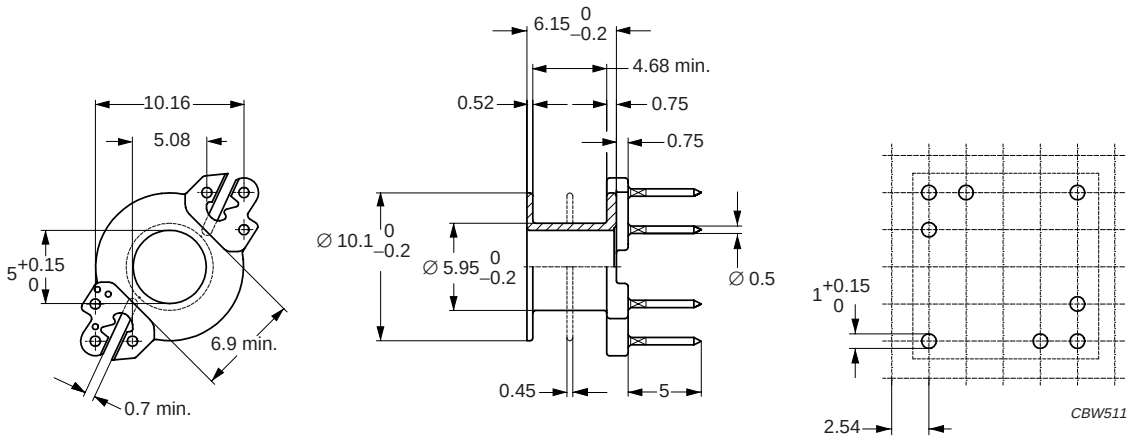
Fig.3 RM5 coil former; 4-pins.

Winding data for 4-pins RM5 coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	WINDING AREA (mm^2)	WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	4	all	9.5	4.8	25	CSV-RM5-1S-4P
2	4	all	2×4.35	2×2.2	25	CSV-RM5-2S-4P

General data coil former

PARAMETER	SPECIFICATION
Coil former material	unsaturated polyester (UP), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E61040 (M)
Solder pad 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



Dimensions in mm.

Fig.4 Coil former for RM5; 6-pins

Winding data for 6-pins RM5 coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	WINDING AREA (mm^2)	WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	TYPE NUMBER
1	6	all	9.2	4.68	24.9	CSV-RM5-1S-6P-G(1)
1	5	1, 2, 3, 5, 6	9.2	4.68	24.9	CSV-RM5-1S-5P-G(1)
1	4	2, 3, 5, 6	9.2	4.68	24.9	CSV-RM5-1S-4P-G(1)
2	6	all	2×4.15	2×2.06	24.9	CSV-RM5-2S-6P-G(1)
2	5	1, 2, 3, 5, 6	2×4.15	2×2.06	24.9	CSV-RM5-2S-5P-G(1)

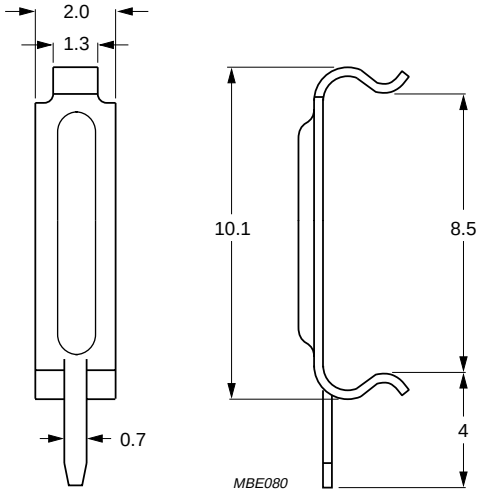
Note

1. Also available with post-inserted pins.

MOUNTING PARTS

General data

ITEM	SPECIFICATION
Clamping force	≈12 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.5 Mounting clip for RM5.

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

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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.