DATA SHEET

RM6R
RM cores and accessories

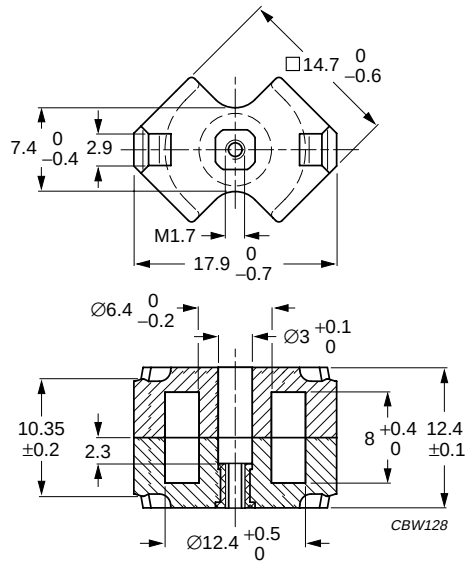
Supersedes data of February 2002 2004 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.810	mm^{-1}
V_e	effective volume	810	mm^3
l_e	effective length	25.6	mm
A_e	effective area	32.0	mm^2
A_{min}	minimum area	23.8	mm^2
m	mass of set	≈ 4.5	g



Dimensions in mm.

Fig.1 RM6R core set.

Core sets for filter applications

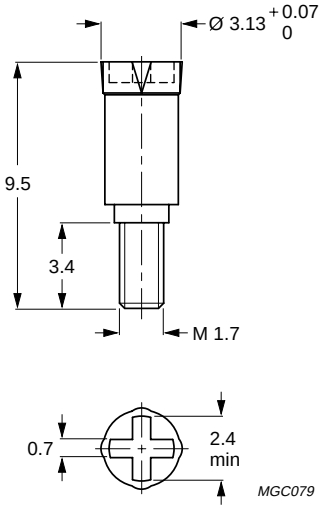
Clamping force for A_L measurements, 40 ±20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER (WITH NUT)	TYPE NUMBER (WITHOUT NUT)
3D3 sup	40 ±3%	≈ 26	≈ 1200	RM6R-3D3-E40/N	RM6R-3D3-E40
	63 ±3%	≈ 41	≈ 700	RM6R-3D3-E63/N	RM6R-3D3-E63
	100 ±3%	≈ 65	≈ 400	RM6R-3D3-E100/N	RM6R-3D3-E100
	160 ±3%	≈ 103	≈ 200	RM6R-3D3-A160/N	RM6R-3D3-A160
	1000 ±25%	≈ 650	≈ 0	–	RM6R-3D3
3H3 sup	160 ±3%	≈ 103	≈ 230	RM6R-3H3-A160/N	RM6R-3H3-A160
	250 ±3%	≈ 161	≈ 110	RM6R-3H3-A250/N	RM6R-3H3-A250
	315 ±3%	≈ 203	≈ 90	RM6R-3H3-A315/N	RM6R-3H3-A315
	400 ±3%	≈ 258	≈ 70	RM6R-3H3-A400/N	RM6R-3H3-A400
	2200 ±25%	≈ 1420	≈ 0	–	RM6R-3H3

INDUCTANCE ADJUSTER

General data

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



Dimensions in mm.

Fig.2 RM6R 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	40	–	–	–	–	ADJ-RM6-GREEN	20
	63	–	–	ADJ-RM6-GREEN	14	ADJ-RM6-RED	22
	100	ADJ-RM6-GREEN	10	ADJ-RM6-RED	16	–	–
	160	ADJ-RM6-GREEN	6	ADJ-RM6-RED	10	ADJ-RM6-WHITE	19
	200	ADJ-RM6-RED	8	ADJ-RM6-WHITE	15	ADJ-RM6-VIOLET	18
	250	ADJ-RM6-WHITE	12	ADJ-RM6-VIOLET	14	ADJ-RM6-BROWN	20
	315	ADJ-RM6-WHITE	9	ADJ-RM6-BROWN	15	ADJ-RM6-BLACK	22
	400	ADJ-RM6-VIOLET	8	ADJ-RM6-BLACK	16	ADJ-RM6-GREY	30
	630	ADJ-RM6-BLACK	9	ADJ-RM6-GREY	15	–	–
	1000	ADJ-RM6-BLACK	5	ADJ-RM6-GREY	8	–	–
	1250	–	–	ADJ-RM6-GREY	5	–	–
3D3	40	–	–	–	–	ADJ-RM6-GREEN	20
	63	–	–	ADJ-RM6-GREEN	14	ADJ-RM6-RED	23
	100	ADJ-RM6-GREEN	9	ADJ-RM6-RED	16	ADJ-RM6-WHITE	28
	160	ADJ-RM6-RED	10	ADJ-RM6-WHITE	17	–	–

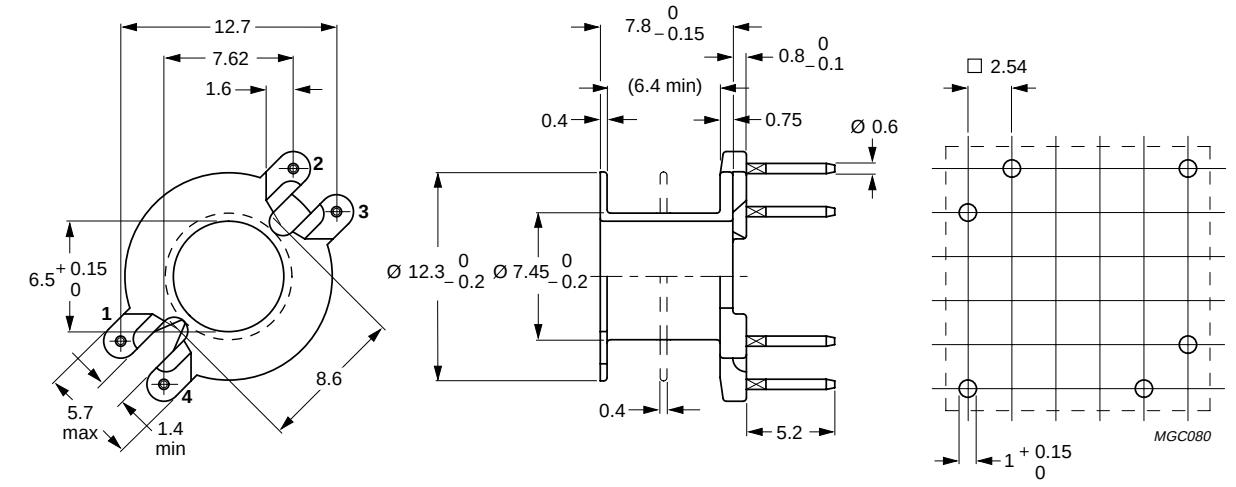
Note

1. Maximum adjustment range.

COIL FORMERS

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

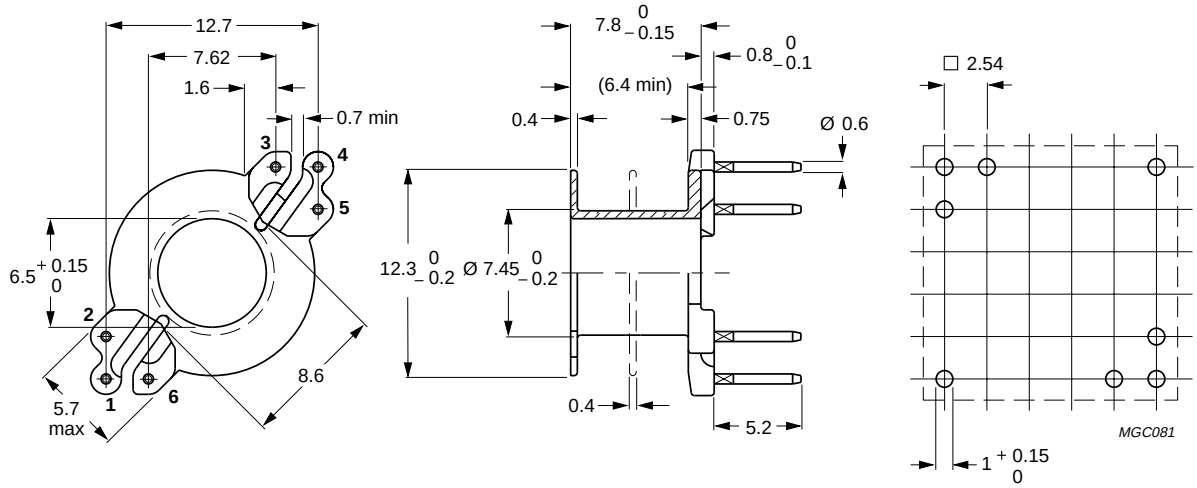


Dimensions in mm.

Fig.3 RM6R coil former; 4-pins.

Winding data for 4-pins RM6R 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	all	30	15	6.4	CSV-RM6S/R-1S-4P
2	4	all	30	2×7.0	2×3.0	CSV-RM6S/R-2S-4P



Dimensions in mm.

Fig.4 RM6R coil former; 6-pins.

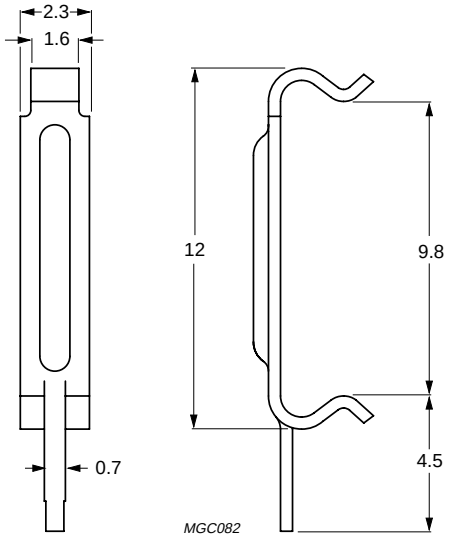
Winding data for 6-pins RM6R coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm^2)	WINDING WIDTH (mm)	TYPE NUMBER
1	6	all	30	15	6.4	CSV-RM6R-1S-6P
2	6	all	30	2×7.0	2×3.0	CSV-RM6R-2S-6P

MOUNTING PARTS

General data

ITEM	SPECIFICATION
Clamping force	≈ 20 N
Clip material	steel
Clip plating	silver (Ag)
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1
Type number	CLI/P-RM6



Dimensions in mm.

Fig.5 Mounting clip for RM6R.

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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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.