

DATA SHEET

RM6R

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

Supersedes data of September 2004

2008 Sep 01

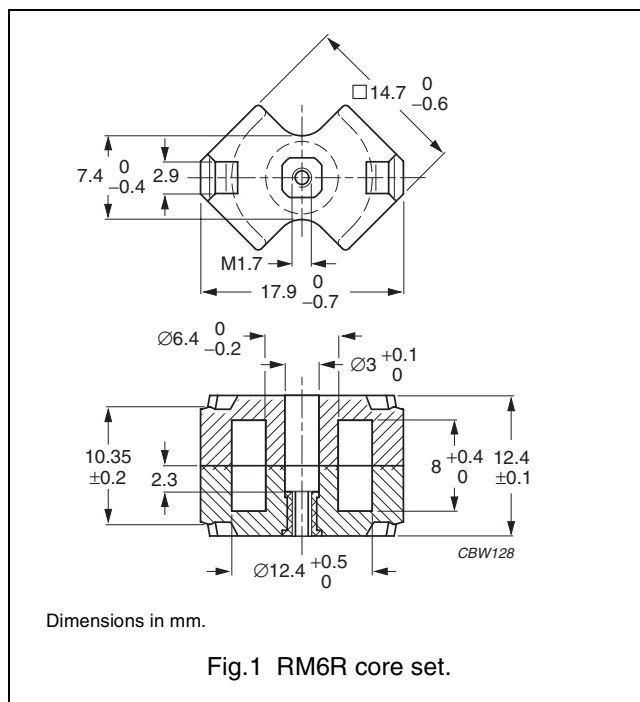


FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	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



Core sets for filter applications

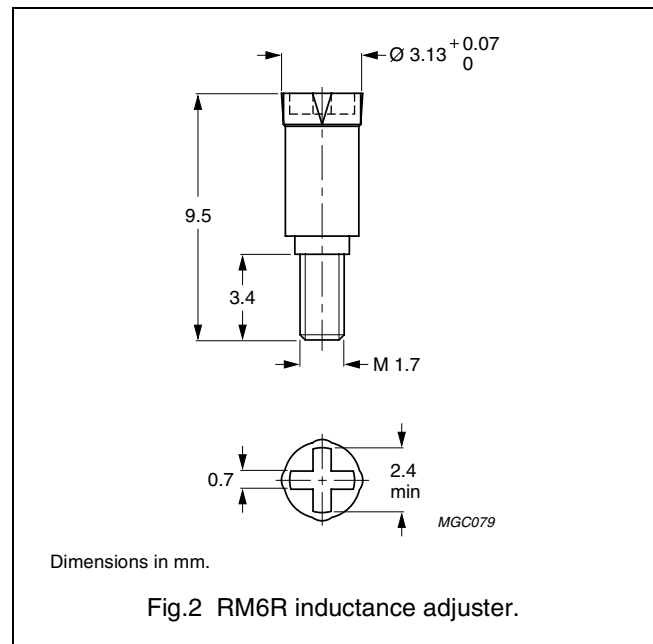
Clamping force for A_L measurements, 40 ±20 N.

GRADE	A_L (nH)	μ_e	TOTAL 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



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	–	–
3D3	1250	–	–	ADJ-RM6-GREY	5	–	–
	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	–	–

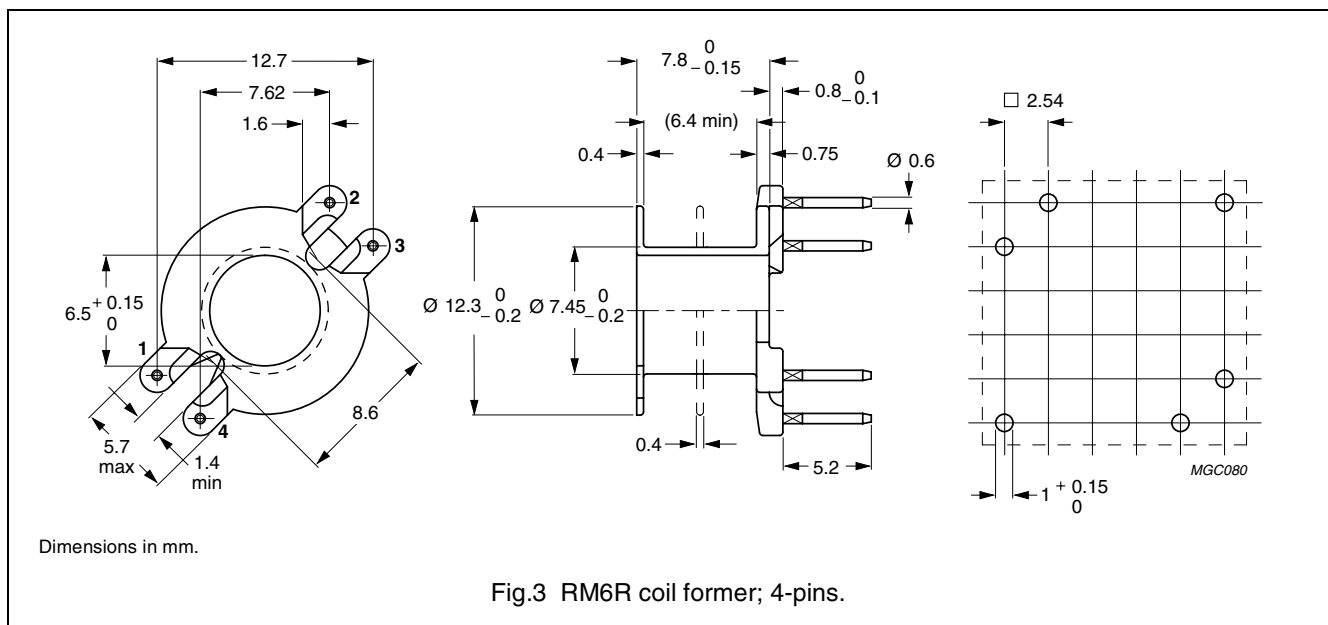
Note

1. Maximum adjustment range.

COIL FORMERS

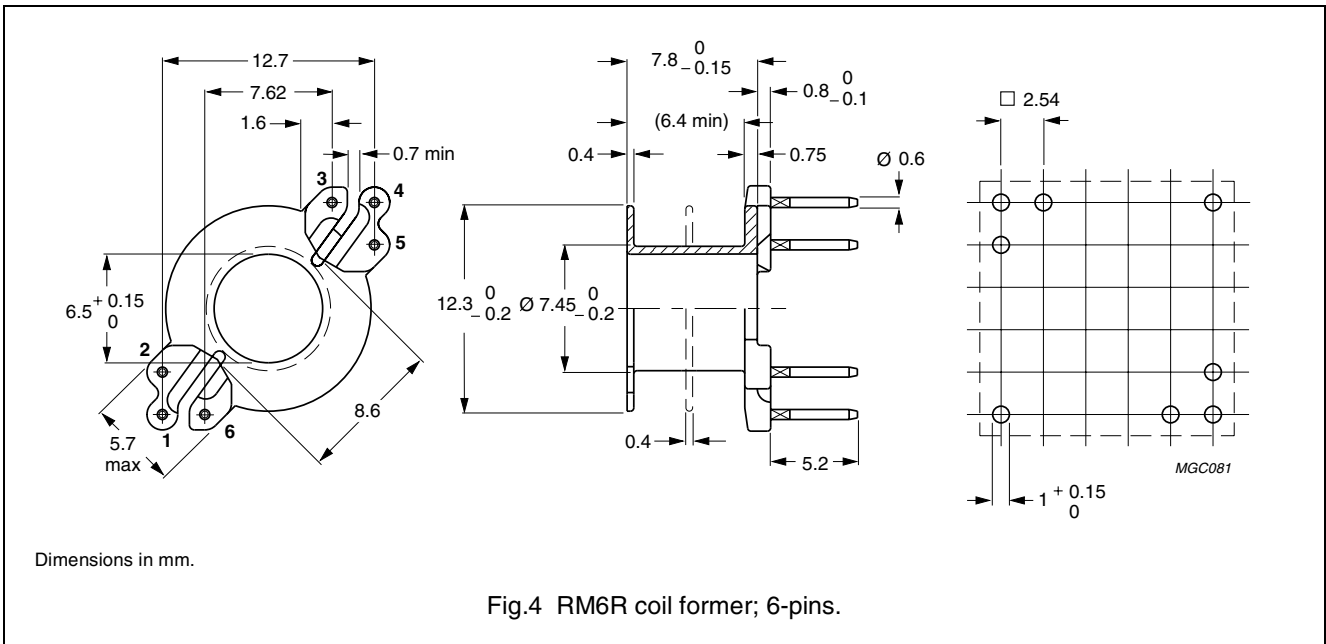
General data

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 (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



Winding data and area product 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)	AREA PRODUCT Ae x Aw (mm ⁴)	TYPE NUMBER
1	4	all	30	15	6.4	480	CSV-RM6S/R-1S-4P
2	4	all	30	2 x 7.0	2 x 3.0	2 x 224	CSV-RM6S/R-2S-4P



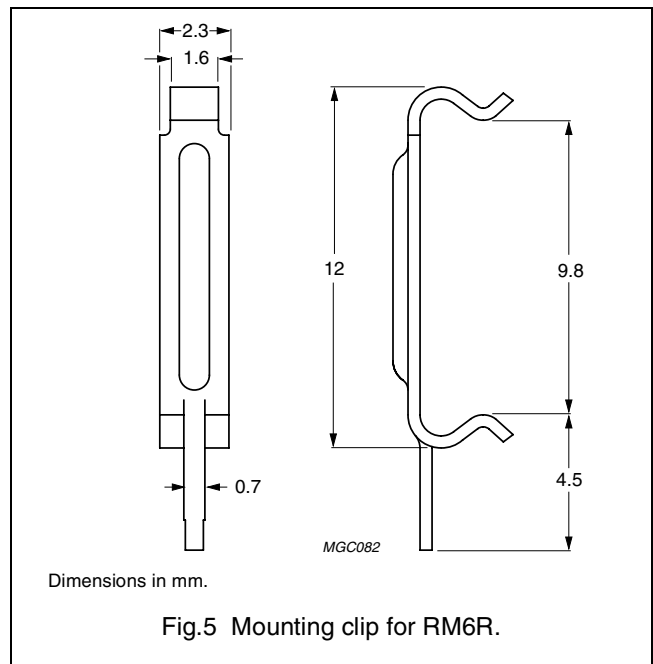
Winding data and area product for 6-pins RM6R coil former

NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm ²)	WINDING WIDTH (mm)	AREA PRODUCT Ae x Aw (mm ⁴)	TYPE NUMBER
1	6	all	30	15	6.4	480	CSV-RM6R-1S-6P
2	6	all	30	2 x 7.0	2 x 3.0	2 x 224	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



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		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.
Design-in		These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		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.