

# Ferrites for EMI Suppression

For Balun Transformer/Choke Coil

RHH, R, RID Series

(Multi-hole, Cylindrical and Rod, Multi-aperture Types)

Issue date: May 2011

- All specifications are subject to change without notice.
  - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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# Ferrite Cores for EMI Suppression For Balun Transformer/Choke Coil

RHH, R, RID Series(Multi-hole, Cylindrical and Rod, Multi-aperture Types)

## MATERIAL CHARACTERISTICS

Material	Practical frequency (MHz)	Initial permeability $\mu_i$	Relative loss factor $\tan\delta/\mu_i \times 10^{-6}$	Temperature factor of initial permeability $\alpha_{\mu ir} \times 10^{-6}/^{\circ}\text{C}$ [+20 to +60°C]	Curie temperature $T_c$ (°C)	Saturation magnetic flux density $B_s$ (mT)	Remanant flux density $B_r$ (mT)	Coercive force $H_c$ (A/m)	Electrical resistivity $\rho_v$ ( $\Omega \cdot \text{m}$ )	Density $\rho_b$ ( $\text{kg}/\text{m}^3$ )
L6	0.01 to 0.5	1500±25%	<10[0.01MHz] <60[0.5MHz]	1 to 3	>100	280 [1.6kA/m]	105	16	10 <sup>5</sup>	5×10 <sup>3</sup>
L7H	0.05 to 1.0	800±25%	<12[0.05MHz] <80[1MHz]	7 to 15	>180	390 [4kA/m]	220	16	10 <sup>5</sup>	5.1×10 <sup>3</sup>
L5	0.1 to 1.5	750±25%	<15[0.1MHz] <280[1.5MHz]	1 to 3	>120	310 [1.6kA/m]	105	40	10 <sup>5</sup>	5×10 <sup>3</sup>
L2H	0.05 to 2	400±25%	<15[0.05MHz] <65[2MHz]	15 to 25	>250	430 [4kA/m]	240	35	10 <sup>5</sup>	5.1×10 <sup>3</sup>
GT2	0.1 to 2	250±25%	<60[2MHz]	9 to 15	>140	310 [1.6kA/m]	160	100	10 <sup>5</sup>	5.1×10 <sup>3</sup>
GT3	0.4 to 10	120±25%	<100[10MHz]	8 to 18	>250	400 [4kA/m]	240	350	10 <sup>5</sup>	5.2×10 <sup>3</sup>
GT11	0.5 to 30	50±25%	<100[0.5MHz] <300[30MHz]	25 to 65	>300	360 [4kA/m]	225	550	10 <sup>5</sup>	5×10 <sup>3</sup>
GT5	3 to 80	25±25%	<470[80MHz]	30 to 70	>300	300 [4kA/m]	220	1100	10 <sup>5</sup>	5.1×10 <sup>3</sup>
GT7	10 to 250	9±25%	<1500[250MHz]	100 to 140	>300	180 [16kA/m]	110	2900	10 <sup>5</sup>	5.1×10 <sup>3</sup>

• 1(mT): 10(gauss), 1(A/m): 0.012566(Oersted)

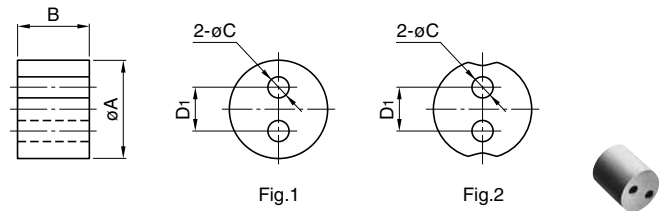
## RHH SERIES

### PRODUCT IDENTIFICATION

$\frac{\text{L6}}{(1)} \frac{\text{RHH}}{(2)} \frac{6}{(3)} \times \frac{5}{(4)} \frac{\text{H}1.2}{(5)} \frac{\bigcirc}{(6)}$

- (1) Material name
- (2) Series name(RHH)
- (3) Outer diameter dimensions(A)
- (4) Height dimensions(B)
- (5) Hole diameter(C)
- (6) Internal code

## CORE SHAPES AND DIMENSIONS



Type	Dimensions(mm)				Fig.
	øA	B	øC	D1	
RHH6X5H1.2	6±0.2	5±0.3	1.2+0.2, -0	2.5	1
RHH7X5.5H1.5M	7±0.2	5.5±0.3	1.5±0.1	3	2

• Please consult us about the combination of shape and the size.

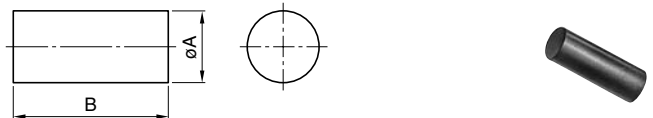
## R SERIES

### PRODUCT IDENTIFICATION

$\frac{\text{GT3}}{(1)} \frac{\text{R}}{(2)} \frac{5}{(3)} \times \frac{20}{(4)} \frac{\bigcirc}{(5)}$

- (1) Material name
- (2) Series name(R)
- (3) Outer diameter dimensions(A)
- (4) Height dimensions(B)
- (5) Internal code

## CORE SHAPES AND DIMENSIONS



• Please consult us about the combination of shape and the size.

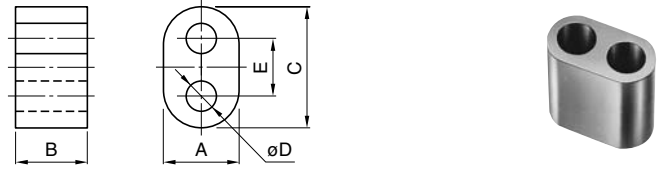
## RID SERIES(STANDARD TYPE)

### PRODUCT IDENTIFICATION

$\frac{\text{GT3}}{(1)}$ 
 $\frac{\text{RID}}{(2)}$ 
 $\frac{3}{(3)}$ 
 $\times$ 
 $\frac{5}{(4)}$ 
 $\times$ 
 $\frac{5}{(5)}$ 
 $\text{H}$ 
 $\frac{1.2}{(6)}$ 
 $\frac{\bigcirc}{(7)}$

- (1) Material name
- (2) Series name(RID)
- (3) External width dimensions(A)
- (4) Height dimensions(B)
- (5) External double-aperture core dimensions(C)
- (6) Hole diameter(D)
- (7) Internal code

### CORE SHAPES AND DIMENSIONS



Type	Dimensions(mm)				
	A	B	C	øD	E
RID1.9X2X3.4H0.9	1.9±0.1	2.0±0.15	3.4±0.3	0.9±0.1	1.4
RID2.6X4X5.1H1.4	2.6±0.3	4.0±0.3	5.1±0.3	1.4±0.2	2.5
RID3X2X5H1.2	3.0±0.2	2.0±0.2	5.2±0.3	1.2±0.1	2.6
RID3X3X5H1.2	3.0±0.2	3.0±0.2	5.2±0.3	1.2±0.1	2.6
RID3X5X5H1.2	3.0±0.2	5.0±0.2	5.2±0.3	1.2±0.1	2.6
RID6.5X4X12H3.8	6.5±0.3	4.0±0.3	12.0±0.5	3.8±0.25	5.5
RID7.5X7X13H3.8	7.5±0.3	7.0±0.3	13.3±0.5	3.8±0.25	5.8
RID8X7X15H5	8.0±0.3	7.0±0.3	15.0±0.5	5.0±0.25	7
RID8X14X15H5T	8.0±0.3	14.0±0.5	15.0±0.5	5.0±0.25	7

- Please consult us about the combination of shape and the size.