

# DATA SHEET

## **EMI-suppression beads** **Soft Ferrites**

Product specification  
Supersedes data of 1998 Apr 07  
File under Ferrite Ceramics, MA01

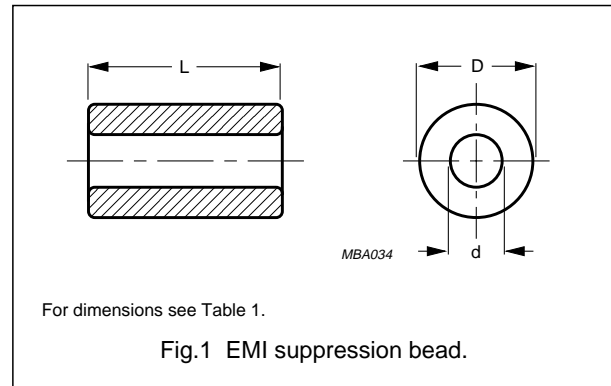
2000 Apr 20

## Soft Ferrites

## EMI-suppression beads

## EMI-SUPPRESSION BEADS

Colour marking: 4S2 has a flash of yellow paint.



**Table 1** Grades, parameters and type numbers; see Fig.1

GRADE	$ Z_{typ}  (\Omega)^{(1)}$							DIMENSIONS (mm)			TYPE NUMBER
	at frequency (MHz)							D	d	L	
	1	3	10	25	30	100	300				
3S1	24	48	49	–	39	33	29	$3 \pm 0.1$	$0.7 + 0.1$	$4 \pm 0.2$	BD3/0.7/4-3S1 <sup>sup</sup>
	18	36	38	–	30	25	23	$3 \pm 0.1$	$1 + 0.1/-0.05$	$4 \pm 0.2$	BD3/1/4-3S1
	41	90	91	–	74	63	55	$3 \pm 0.1$	$1 + 0.1/-0.05$	$10 \pm 0.3$	BD3/1/10-3S1 <sup>sup</sup>
	34	65	66	–	53	45	40	$5.1 - 0.3$	$0.75 + 0.1$	$4 \pm 0.2$	BD5.1/0.8/4-3S1 <sup>sup</sup>
	16	28	40	–	33	28	25	$5.1 - 0.3$	$1.5 + 0.15$	$4 \pm 0.2$	BD5.1/1.5/4-3S1
	50	90	100	–	80	69	60	$5.1 - 0.3$	$1.5 + 0.15$	$10 \pm 0.3$	BD5.1/1.5/10-3S1 <sup>sup</sup>
	13	23	30	–	25	21	19	$5.1 - 0.3$	$2 + 0.2$	$4 \pm 0.2$	BD5.1/2/4-3S1
	36	64	76	–	61	53	46	$5.1 - 0.3$	$2 + 0.2$	$10 \pm 0.3$	BD5.1/2/10-3S1 <sup>sup</sup>
4S2	7	20	35	–	54	69	76	$1.9 + 0.2$	$0.8 + 0.2$	$9.75 - 0.2$	BD1.9/0.8/9.8-4S2 <sup>sup</sup>
	4	11	23	–	31	48	54	$3 \pm 0.1$	$1 + 0.1/-0.05$	$4 \pm 0.2$	BD3/1/4-4S2
	–	–	–	27	–	40	–	$3.5 \pm 0.2$	$1.3 \pm 0.1$	$3.25 \pm 0.25$	BD3.5/1.3/3.3-4S2
	–	–	–	47	–	60	–	$3.5 \pm 0.2$	$1.3 \pm 0.1$	$6 \pm 0.25$	BD3.5/1.3/6-4S2
	–	–	–	89	–	125	–	$3.5 \pm 0.2$	$1.3 \pm 0.1$	$12.7 \pm 0.35$	BD3.5/1.3/13-4S2
	15	50	94	–	138	213	238	$5.1 - 0.3$	$0.75 + 0.1$	$10 \pm 0.3$	BD5.1/0.8/10-4S2 <sup>sup</sup>
	4	13	25	–	34	51	59	$5.1 - 0.3$	$1.5 + 0.15$	$4 \pm 0.2$	BD5.1/1.5/4-4S2
	9	31	56	–	85	130	145	$5.1 - 0.3$	$1.5 + 0.15$	$10 \pm 0.3$	BD5.1/1.5/10-4S2
	3	10	19	–	25	40	45	$5.1 - 0.3$	$2 + 0.2$	$4 \pm 0.2$	BD5.1/2/4-4S2
	–	–	34	–	–	78	–	$5.1 - 0.3$	$2 + 0.2$	$7.1 \pm 0.2$	BD5.1/2/7.1-4S2
	8	19	38	–	64	100	111	$5.1 - 0.3$	$2 + 0.2$	$10 \pm 0.3$	BD5.1/2/10-4S2 <sup>sup</sup>
	–	–	–	135	–	200	–	$6.35 \pm 0.15$	$2.95 + 0.45$	$25.4 \pm 0.75$	BD6.4/3/25-4S2
	–	–	–	63	–	92	–	$7.65 - 0.25$	$2.25 + 0.25$	$7.55 \pm 0.25$	BD7.7/2.3/7.6-4S2
	5	13	25	–	39	61	69	$8 \pm 0.2$	$2 + 0.2$	$4 \pm 0.2$	BD8/2/4-4S2
3	10	19	–	28	43	48	$8 \pm 0.2$	$3 + 0.2$	$4 \pm 0.2$	BD8/3/4-4S2	
8	25	50	–	69	106	119	$8 \pm 0.2$	$3 + 0.2$	$10 \pm 0.3$	BD8/3/10-4S2	

**Note**

1. Typical values at 100 MHz,  $|Z|_{min}$  is –20%.

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## DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
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