

# DATA SHEET

## **Wideband chokes** EMI-suppression products

Supersedes data of February 2002

2004 Sep 01

# EMI-suppression products

# Wideband chokes

## WIDEBAND CHOKES FOR EMI-SUPPRESSION

### General data WBC1.5/A

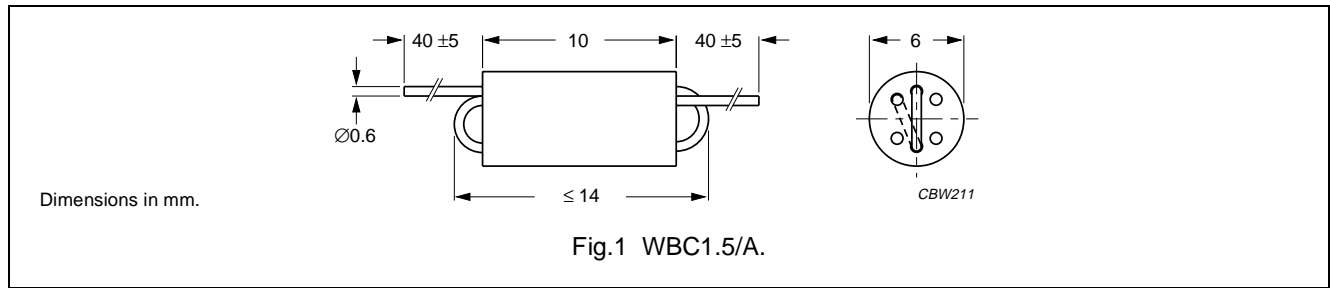
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

### Grades, parameters and type numbers; see Fig.1

GRADE	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	1.5	≥300	120	WBC1.5/A-3S4
4B1	1.5	≥350	250	WBC1.5/A-4B1
4S2	1.5	213 <sup>(1)</sup>	10	WBC1.5/A-4S2
		400 <sup>(1)</sup>	50	
		470 <sup>(1)</sup>	100	

**Note**

1. Minimum guaranteed impedance is |Z|<sub>typ</sub> -20%.
2. Also available with insulated



### General data WBC1.5/1.5/A

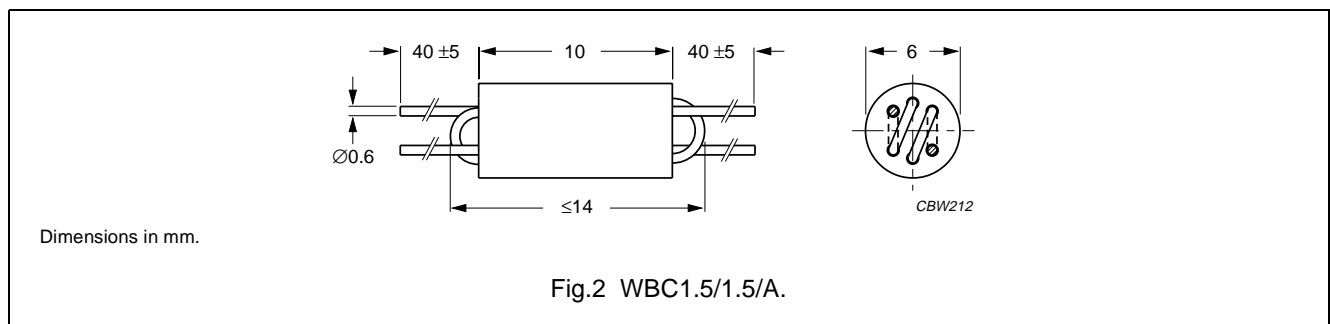
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

### Grades, parameters and type numbers; see Fig.2

GRADE	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	2 × 1.5	≥700 <sup>(1)</sup>	50	WBC1.5/1.5/A-3S4
4B1	2 × 1.5	≥800 <sup>(1)</sup>	110	WBC1.5/1.5/A-4B1
4S2	2 × 1.5	213 <sup>(2)</sup>	10	WBC1.5/1.5/A-4S2
		400 <sup>(2)</sup>	50	
		470 <sup>(2)</sup>	100	
4A15	2 × 1.5	1000	50	WBC1.5/1.5/A-4A15
		1000	180	

**Notes**

1. |Z| measured with both windings connected in series.
2. Minimum guaranteed impedance is |Z|<sub>typ</sub> -20%; measured with one winding.



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### General data WBC2/R

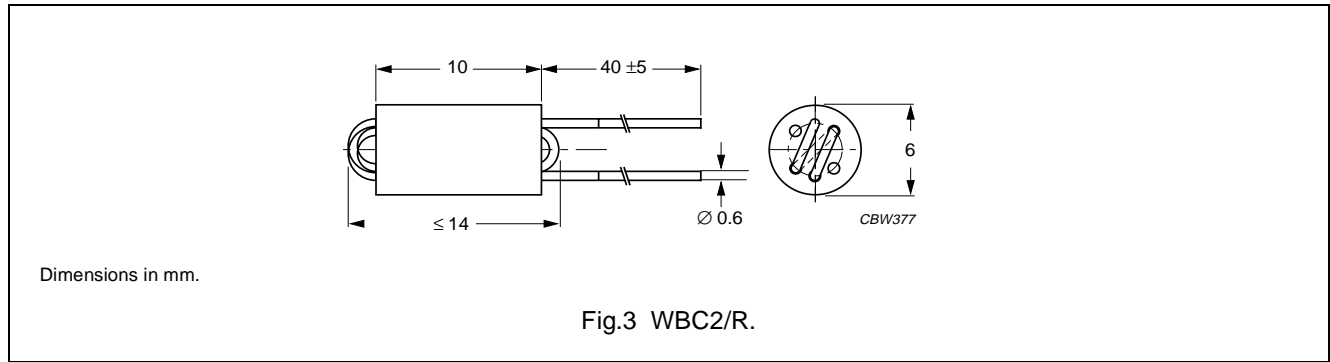
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

### Grades, parameters and type numbers; see Fig.3

GRADE	No. OF TURNS	Z <sub>typ</sub>   <sup>(1)</sup> at f		TYPE NUMBER
		(Ω)	(MHz)	
4S2	2	300	10	WBC2/R-4S2
		650	50	
		600	100	
4A15	2	≥730	50	WBC2/R-4A15
		≥750	180	

**Note**

1. Minimum guaranteed impedance is |Z|<sub>typ</sub> -20%.



### General data WBC2.5/A

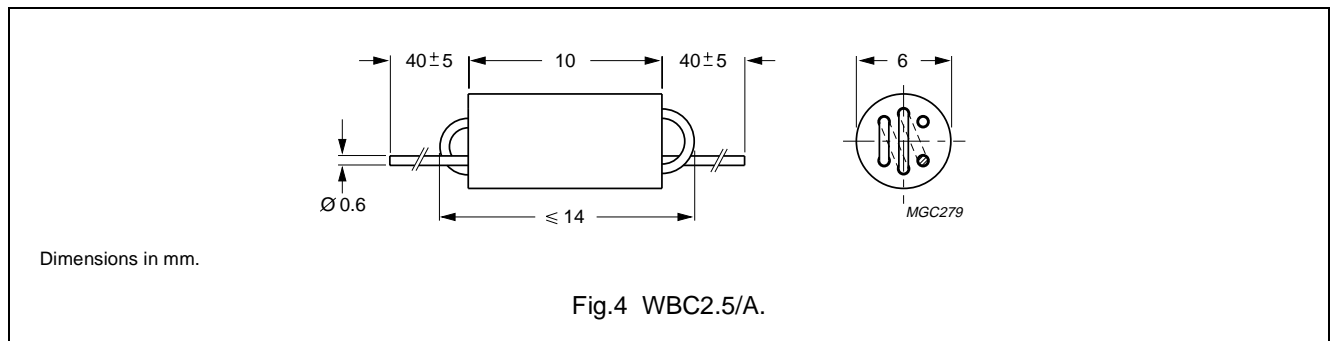
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

### Grades, parameters and type numbers; see Fig.4

GRADE	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	2.5	≥600	50	WBC2.5/A-3S4 <sup>(2)</sup>
4B1	2.5	≥700	180	WBC2.5/A-4B1 <sup>(2)</sup>
4S2	2.5	400 <sup>(1)</sup>	10	WBC2.5/A-4S2
		850 <sup>(1)</sup>	50	
		725 <sup>(1)</sup>	100	
4A15	2.5	800	50	WBC2.5/A-4A15
		820	180	

**Note**

1. Minimum guaranteed impedance is |Z|<sub>typ</sub> -20%.
2. Also available with insulated wires, sleeves, encapsulated and taped and reeled.



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## General data WBC2.5/R

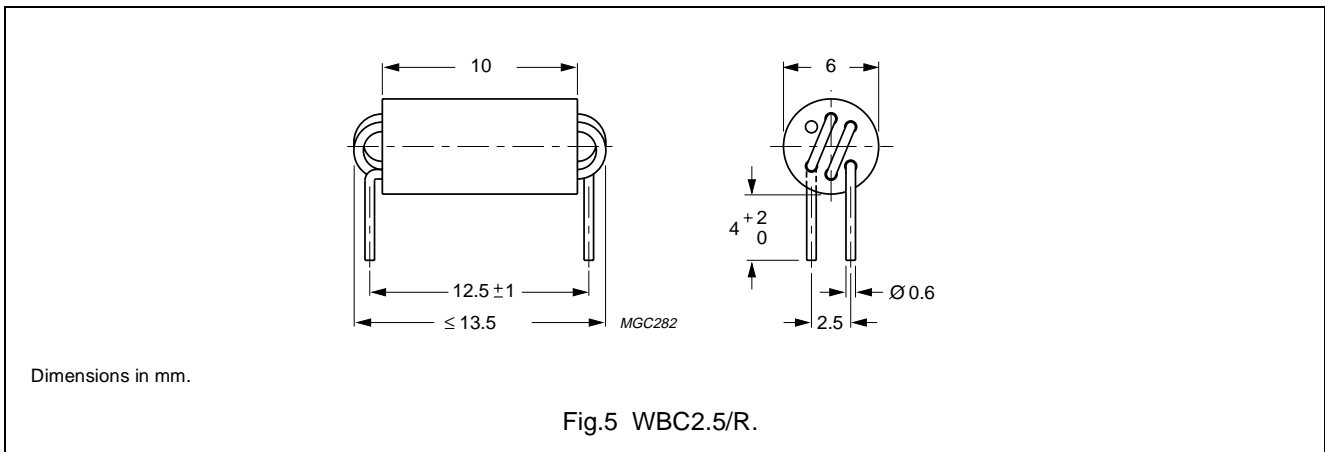
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## Grades, parameters and type numbers; see Fig.5

GRADE	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	2.5	≥600	50	WBC2.5/R-3S4 <sup>(1)</sup> <b>sup</b>
4B1	2.5	≥700	75	WBC2.5/R-4B1 <sup>(2)</sup> <b>sup</b>
4S2	2.5	400	10	WBC2.5/R-4S2 <b>sup</b>
		850	50	
		725	100	

**Note**

- Also available with insulated wires, sleeves and moulded.
- Also available with insulated wires, sleeves.



## General data WBC2.5/SP

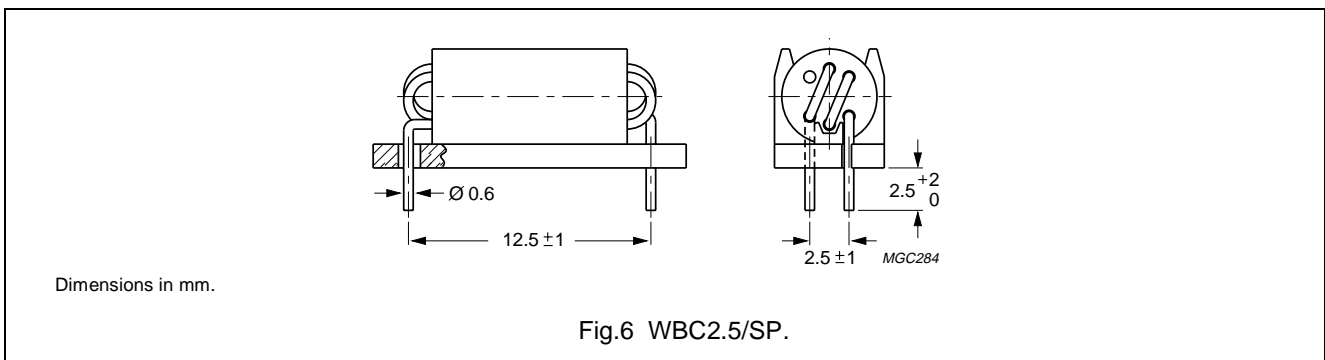
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Support	polyamide (PA6.6) plate to allow mounting across circuit tracks; flame retardant in accordance with UL 94V-0
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## Grades, parameters and type numbers; see Fig.6

GRADE note 1	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	2.5	≥600	50	WBC2.5/SP-3S4 <b>sup</b>
4B1	2.5	≥700	75	WBC2.5/SP-4B1 <b>sup</b>

**Note**

- Colour code 3S4 = blue, 4B1 = green.



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## General data WBC3/R

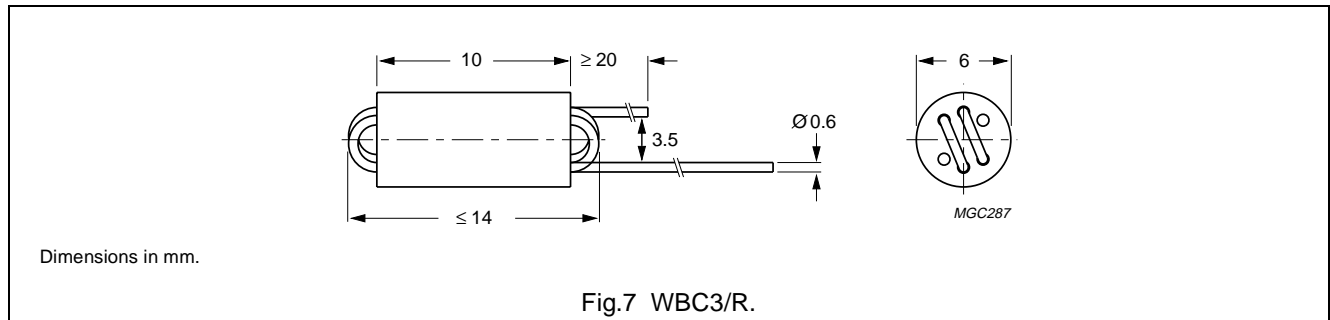
ITEM	SPECIFICATION
Wire material	copper (Cu), tin-lead (SnPb) plated, lead-free (Sn) available on request.
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## Grades, parameters and type numbers; see Fig.7

GRADE	No. OF TURNS	Z <sub>typ</sub>   at f		TYPE NUMBER
		(Ω)	(MHz)	
3S4	3	≥650	63	WBC3/R-3S4 <sup>(2)</sup>
4B1	3	≥800	110	WBC3/R-4B1 <sup>(2)</sup>
4S2	3	500 <sup>(1)</sup>	10	WBC3/R-4S2
		1 000 <sup>(1)</sup>	50	
		688 <sup>(1)</sup>	100	
4A15	3	≥1000	50	WBC3/R-4A15
		≥1000	180	

### Note

1. Minimum guaranteed impedance is |Z<sub>typ</sub>|<sub>-20%</sub>.
2. Also available with encapsulation and/or taped and reeled.



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### 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
<b>Prototype</b>		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.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
<b>Support</b>		These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.