

# DATA SHEET

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

Supersedes data of September 2004

2008 Sep 01



## EMI-suppression products

## Wideband chokes

## WIDEBAND CHOKES FOR EMI-SUPPRESSION

## General data WBC1.5/A

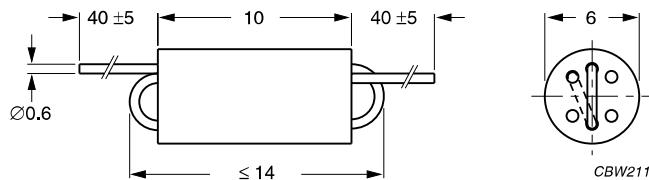
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## 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
		≥350	250	WBC1.5/A-4B1
		213 <sup>(1)</sup>	10	WBC1.5/A-4S2
		400 <sup>(1)</sup>	50	
4S2	1.5	470 <sup>(1)</sup>	100	

## Note

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



Dimensions in mm.

Fig.1 WBC1.5/A.

## General data WBC1.5/1.5/A

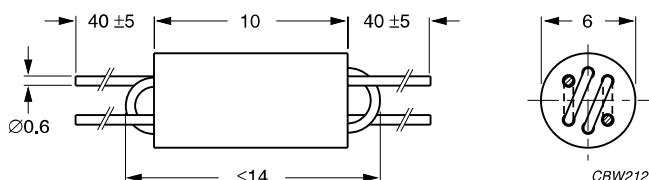
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## 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
		≥800 <sup>(1)</sup>	110	WBC1.5/1.5/A-4B1
		213 <sup>(2)</sup>	10	WBC1.5/1.5/A-4S2
		400 <sup>(2)</sup>	50	
4S2	2 × 1.5	470 <sup>(2)</sup>	100	
		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.



Dimensions in mm.

Fig.2 WBC1.5/1.5/A.

## EMI-suppression products

## Wideband chokes

## General data WBC2/R

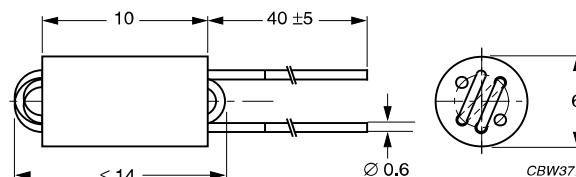
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## 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%.



Dimensions in mm.

Fig.3 WBC2/R.

## General data WBC2.5/A

ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

435809; Drossel 4,5µH

Herstellerbezeichnung WBC2.5/A-3S4-Z

Hersteller-Art.Nr. 432703041971

RoHS-konform, bleifrei

03.12.19; Rauser/Buss

KV50960

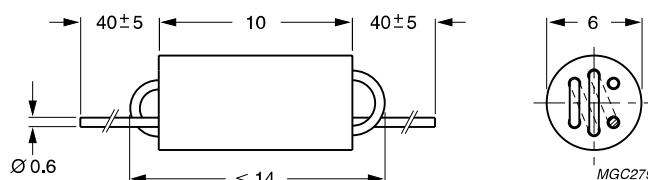
## Grades, parameters and type numbers; see Fig.4

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>
		≥700	180	
		400 <sup>(1)</sup>	10	
4S2	2.5	850 <sup>(1)</sup>	50	WBC2.5/A-4S2
		725 <sup>(1)</sup>	100	
		800	50	
4A15	2.5	820	180	WBC2.5/A-4A15

## Note

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

2. Also available with insulated wires, sleeves, encapsulated and taped and reeled.



Dimensions in mm.

Fig.4 WBC2.5/A.

## EMI-suppression products

## Wideband chokes

## General data WBC2.5/R

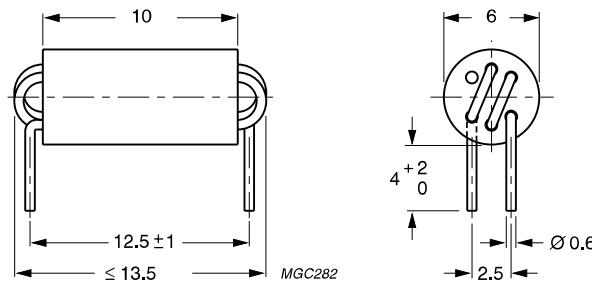
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## 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> <span style="border: 1px solid black; padding: 2px;">sup</span>
4B1	2.5	≥700	75	WBC2.5/R-4B1 <sup>(2)</sup> <span style="border: 1px solid black; padding: 2px;">sup</span>
4S2	2.5	400	10	WBC2.5/R-4S2 <span style="border: 1px solid black; padding: 2px;">sup</span>
		850	50	
		725	100	

## Note

1. Also available with insulated wires, sleeves and moulded.
2. Also available with insulated wires, sleeves.



Dimensions in mm.

Fig.5 WBC2.5/R.

## General data WBC2.5/SP

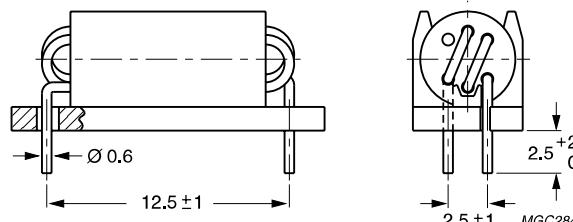
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Support	polyamide (PA6.6) plate to allow mounting across circuit tracks; flame retardant in accordance with UL 94V-0
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

## 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 <span style="border: 1px solid black; padding: 2px;">sup</span>
4B1	2.5	≥700	75	WBC2.5/SP-4B1 <span style="border: 1px solid black; padding: 2px;">sup</span>

## Note

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



Dimensions in mm.

Fig.6 WBC2.5/SP.

## EMI-suppression products

## Wideband chokes

## General data WBC3/R

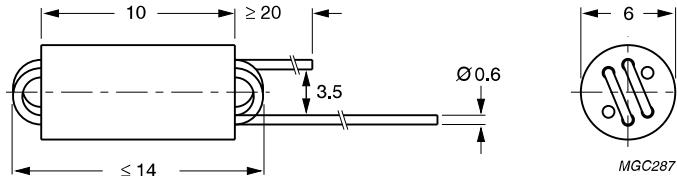
ITEM	SPECIFICATION
Wire material	copper (Cu), tin (Sn) plated
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1

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

GRADE	No. OF TURNS	$ Z_{typ} $	at f	TYPE NUMBER
		( $\Omega$ )	(MHz)	
3S4	3	$\geq 650$	63	WBC3/R-3S4 <sup>(2)</sup>
4B1	3	$\geq 800$	110	WBC3/R-4B1 <sup>(2)</sup>
4S2	3	500 <sup>(1)</sup>	10	WBC3/R-4S2
		1000 <sup>(1)</sup>	50	
		688 <sup>(1)</sup>	100	
4A15	3	$\geq 1000$	50	WBC3/R-4A15
		$\geq 1000$	180	

## Note

1. Minimum guaranteed impedance is  $|Z_{typ}| - 20\%$ .
2. Also available with encapsulation and/or taped and reeled.



Dimensions in mm.

Fig.7 WBC3/R.

## EMI-suppression products

## Wideband chokes

## 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 <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.