

**A Dimensions: [mm]**

Scale - 20:1

**B Recommended land pattern: [mm]**

WIDE BAND / HIGH SPEED:  $W = 2,2$   
HIGH CURRENT:  $W = 2,6$

Scale - 20:1

**C Schematic:****D Electrical Properties:**

Properties	Test conditions		Value	Unit	Tol.
Impedance @ 100 MHz	100 MHz	Z	600	$\Omega$	$\pm 25\%$
Impedance @ 1 GHz	1 GHz	Z	450	$\Omega$	min.
Maximum impedance	450 MHz	Z	1000	$\Omega$	typ.
Rated current	$\Delta T = 20K$	$I_R$	200	mA	max.
DC Resistance		$R_{DC}$	0.90	$\Omega$	max.
Type			Wide Band		

**E General information:**

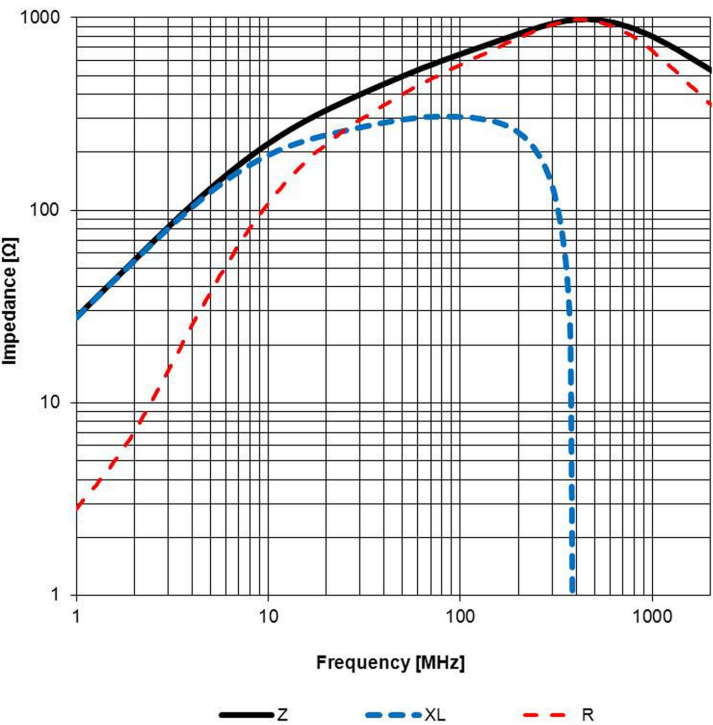
Do not use this part beyond the Rated Current, as this will create excessive heat and can harm the component

- Storage Temperature (on Tape & Reel):  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Operating Temperature:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Test conditions of Electrical Properties:  $20^{\circ}\text{C}$ , 33% RH if not specified differently

				Projection		DESCRIPTION
4.5	2013-04-17	SSt	SSt			<b>WE-CBF HF SMD EMI Suppression Ferrite Bead (High Frequency)</b>
4.4	2012-11-28	SSt	SSt			
4.3	2012-10-23	SSt	SMu		Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	Order.- No.
4.2	2012-09-27	SSt	SMu			<b>742861160</b> Size: 0603
4.1	2012-06-27	SSt	SSt			
4.0	2012-03-29	SSt	SMu			
3.0	2009-10-23	SMu	-			
REV	DATE	BY	CHECKED			SIZE
						A4



F Typical Impedance Characteristics:



Test Equipment: E4991A or equivalent

F Derating Curve:



				<div>Projection</div> 		DESCRIPTION
4.5	2013-04-17	SSt	SSt			
4.4	2012-11-28	SSt	SSt			<div>WE-CBF HF SMD EMI Suppression Ferrite Bead (High Frequency)</div>
4.3	2012-10-23	SSt	SMu	<div>Würth Elektronik eiSos GmbH &amp; Co. KG EMC &amp; Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com</div>		
4.2	2012-09-27	SSt	SMu			
4.1	2012-06-27	SSt	SSt			
4.0	2012-03-29	SSt	SMu			
3.0	2009-10-23	SMu	-			<div>Order.- No.</div> <div>742861160</div> <div>COMPLIANT RoHS&amp;REACH WÜRTH ELEKTRONIK</div>
REV	DATE	BY	CHECKED			<div>Size: 0603</div>

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik eiSos GmbH & Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik eiSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

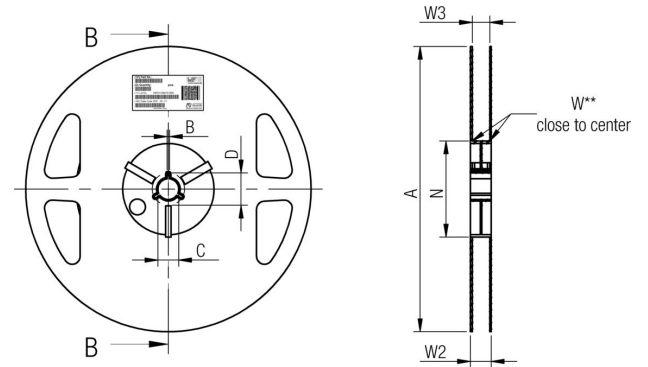
G Packaging Specification: [mm]



size		A0	B0	W	P1	T	T1	D0	E1	E2	F	P0	P2	Tape	Packaging Unit
	tolerance	typ.	typ.	+0,3 -0,1	± 0,1	max.	max.	+0,1 -0,0	± 0,1	min.	± 0,05	± 0,1	± 0,05		
	0402	0,69	1,19	8,00	2,00	0,66	0,10	1,50	1,75	6,25	3,50	4,00	2,00	Paper	10000
	0603	1,10	1,88	8,00	4,00	1,10	0,10	1,50	1,75	6,25	3,50	4,00	2,00	Paper	4000
	0805	1,42	2,24	8,00	4,00	1,04	0,10	1,50	1,75	6,25	3,50	4,00	2,00	Paper	4000



Packaging is referred to the international standard IEC 60286 -3:2007



		A	B	C	D	N	W1	W2	W3	W3
tolerance			min.	± 0,8	min.	min.	+1,5	max.	min.	max.
Tape width	8 mm	178,00	1,50	13,00	20,20	50,00	8,40	14,40	7,90	10,90



Pull-of force	
Tape width	8 mm
	0,1 N - 1,0 N

4.5	2013-04-17	SSt	SSt	
4.4	2012-11-28	SSt	SSt	
4.3	2012-10-23	SSt	SMu	
4.2	2012-09-27	SSt	SMu	
4.1	2012-06-27	SSt	SSt	
4.0	2012-03-29	SSt	SMu	
3.0	2009-10-23	SMu	-	
REV	DATE	BY	CHECKED	



Würth Elektronik eiSos GmbH & Co. KG  
EMC & Inductive Solutions  
Max-Eyth-Str. 1  
74638 Waldenburg  
Germany  
Tel. +49 (0) 79 42 945 - 0  
www.we-online.com  
eiSos@we-online.com

DESCRIPTION

**WE-CBF HF SMD EMI Suppression Ferrite Bead (High Frequency)**

Order.- No.

**742861160**

Size: 0603



SIZE

A4

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik eiSos GmbH & Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik eiSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

H Soldering Specifications:



H1: Classification Reflow Profile for SMT components:



H2: Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Preheat <ul style="list-style-type: none"><li>- Temperature Min (<math>T_{smin}</math>)</li><li>- Temperature Max (<math>T_{smax}</math>)</li><li>- Time (<math>t_s</math>) from (<math>T_{smin}</math> to <math>T_{smax}</math>)</li></ul>	150°C 200°C 60-120 seconds
Ramp-up rate ( $T_L$ to $T_P$ )	3°C/ second max.
Liquidous temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217°C 60-150 seconds
Peak package body temperature ( $T_P$ )	See Table H3
Time within 5°C of actual peak temperature ( $t_p$ )	20-30 seconds
Ramp-down rate ( $T_P$ to $T_L$ )	6°C/ second max.
Time 25°C to peak temperature	8 minutes max.

refer to IPC/JEDEC J-STD-020D

H3: Package Classification Reflow Temperature

	Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
PB-Free Assembly	< 1.6 mm	260°C	260°C	260°C
PB-Free Assembly	1.6 - 2.5 mm	260°C	250°C	245°C
PB-Free Assembly	≥ 2.5 mm	250°C	245°C	245°C

refer to IPC/JEDEC J-STD-020D

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik eiSos GmbH & Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik eiSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

				Projection		DESCRIPTION
4.5	2013-04-17	SSt	SSt			<b>WE-CBF HF SMD EMI Suppression Ferrite Bead (High Frequency)</b>
4.4	2012-11-28	SSt	SSt			
4.3	2012-10-23	SSt	SMu			
4.2	2012-09-27	SSt	SMu			
4.1	2012-06-27	SSt	SSt			
4.0	2012-03-29	SSt	SMu			
3.0	2009-10-23	SMu	-			
REV	DATE	BY	CHECKED			

Würth Elektronik eiSos GmbH & Co. KG  
EMC & Inductive Solutions  
Max-Eyth-Str. 1  
74638 Waldenburg  
Germany  
Tel. +49 (0) 79 42 945 - 0  
www.we-online.com  
eiSos@we-online.com

Order.- No.  
**742861160**  
Size: 0603

**COMPLIANT**  
**RoHS&REACH**  
WÜRTH ELEKTRONIK

SIZE  
A4

# I Cautions and Warnings:

The following conditions apply to all goods within the product series of **WE-CBF HF** of Würth Elektronik eiSos GmbH & Co. KG:

## General:

All recommendations according to the general technical specifications of the data-sheet have to be complied with.

The disposal and operation of the product within ambient conditions which probably alloy or harm the component surface has to be avoided.

If the product is potted in customer applications, the potting material might shrink during and after hardening. Accordingly to this the product is exposed to the pressure of the potting material with the effect that the ferrite body and termination is possibly damaged by this pressure and so the electrical as well as the mechanical characteristics are endanger to be affected. After the potting material is cured, the ferrite body and termination of the product have to be checked if any reduced electrical or mechanical functions or destructions have occurred.

The responsibility for the applicability of customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products do also apply for customer specific products.

Cleaning agents that are used to clean the application might damage or change the characteristics of the component, body, pins or termination.

Direct mechanical impact to the product shall be prevented as the ferrite material of the ferrite body could flake or in the worst case it could break.

## Product specific:

Follow all instructions mentioned in the datasheet, especially:

- The solder profile has to be complied with according to the technical reflow soldering specification, otherwise no warranty will be sustained.
- Wave soldering is only allowed after evaluation and approval.
- All products shall be used before the end of the period of 12 months based on the product date-code, if not a 100% solderability can't be warranted.
- Violation of the technical product specifications such as exceeding the nominal rated current will result in the loss of warranty.



				Projection		DESCRIPTION
4.5	2013-04-17	SSt	SSt			<b>WE-CBF HF SMD EMI Suppression Ferrite Bead (High Frequency)</b>
4.4	2012-11-28	SSt	SSt			
4.3	2012-10-23	SSt	SMu			
4.2	2012-09-27	SSt	SMu			
4.1	2012-06-27	SSt	SSt			
4.0	2012-03-29	SSt	SMu			
3.0	2009-10-23	SMu	-			
REV	DATE	BY	CHECKED			

Würth Elektronik eiSos GmbH & Co. KG  
EMC & Inductive Solutions  
Max-Eyth-Str. 1  
74638 Waldenburg  
Germany  
Tel. +49 (0) 79 42 945 - 0  
www.we-online.com  
eiSos@we-online.com

Order.- No.

**742861160**

Size: 0603



SIZE

A4

