



MCC series

FEATURES

1. Powerful component with composite co-fired material to solve EMI problem for high-speed differential signal transmission line as USB, IEEE1393 and LVDS, without distortion to high speed signal transmission
2. High coupling constant : 0.99
3. Small size and low profile
4. Various common mode impedance items of 67 to 220 ohm can be used, considering noise level and signal frequency
5. Small dimension enable higher density packaging



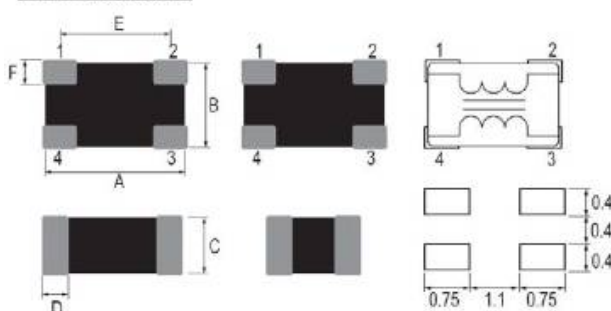
APPLICATIONS

- Common mode noise suppression of signal lines in high speed and high density digital equipment such as personal computer, facsimiles, modem, and digital telephones.

PARTNUMBER

DIMENSIONS

MCM 2012 series



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
2012	2.0±0.2	1.25±0.20	1.00±0.10	0.40±0.20	1.60±0.20	0.30±0.20

MCC	2012	W	900	T	04	F	V
A	B	C	D	E	F	G	H

- A: Series
 B: Dimension A x B
 C: Material Lead Free
 D: Impedance 900=90Ω
 E: Packaging T=Taping and Reel
 B=Bulk(Bags)
 F: Rated Current 04=400mA
 G: Lead Free Code
 H: ID Code

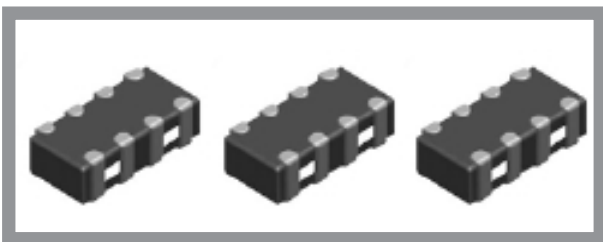
MCC 2012

BW Part Number	Rated Current (mA)	Common mode Impedance (Ω)	DCR (max.Ω)	Rated Voltage (Vdc)	Withstand Voltage (Vdc)
MCC2012W670T04	400	67±25% at 100MHz	0.4	10	25
MCC2012W900T04	400	90±25% at 100MHz	0.4	10	25
MCC2012W121T04	400	120±25% at 100MHz	0.4	10	25
MCC2012W181T04	400	180±25% at 100MHz	0.5	10	25
MCC2012W221T04	400	220±25% at 100MHz	0.5	10	25

MCA series

FEATURES

1. Powerful component with composite co-fired material to solve EMI problem for high-speed differential signal transmission line as USB, IEEE1394 and LVDS, without distortion to high speed signal transmission
2. High coupling constant : 0.99
3. Small size and low profile
4. Various common mode impedance items of 90 to 220 ohm can be used, considering noise level and signal frequency
5. Small dimension enable higher density packaging



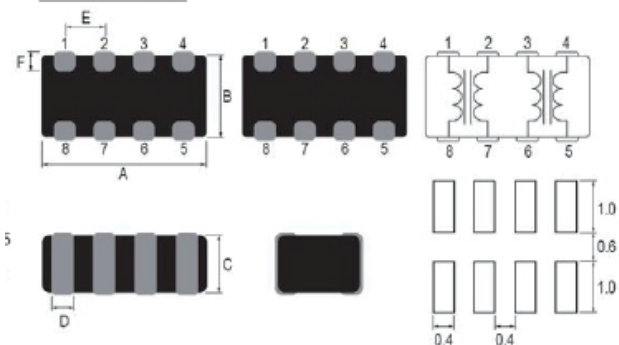
APPLICATIONS

- Common mode noise suppression of signal lines in high speed and high density digital equipment such as personal computer, facsimiles, modem, and digital telephones.

PARTNUMBER

DIMENSIONS

MCA 3216 series



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
3216	3.20±0.20	1.60±0.20	1.00±0.10	0.45±0.15	0.80±0.10	0.30±0.20

MCA	3216	W	900	T	04	F	V
A	B	C	D	E	F	G	H

A: Series
 B: Dimension A x B
 C: Material Lead Free
 D: Impedance 900=90Ω
 E: Packaging T=Taping and Reel
 B=Bulk(Bags)
 F: Rated Current 04=400mA
 G: Lead Free Code
 H: ID Code

MCA 3216

BW Part Number NEW	Rated Current (mA)	Common mode Impedance (Ω)	DCR (max.Ω)	Rated Voltage (Vdc)	Withstand Voltage (Vdc)
MCA3216W670T04	400	67±25% at 100MHz	0.6	10	25
MCA3216W900T04	400	90±25% at 100MHz	0.7	10	25
MCA3216W121T04	400	120±25% at 100MHz	0.7	10	25
MCA3216W181T04	400	180±25% at 100MHz	0.9	10	25
MCA3216W221T04	400	220±25% at 100MHz	0.9	10	25



WCK series

FEATURES

1. High common mode impedance at high frequency effects excellent noise suppression performance.
2. WCK series realize as small size and low profile.
3. The products contain no lead and also support lead-free soldering.



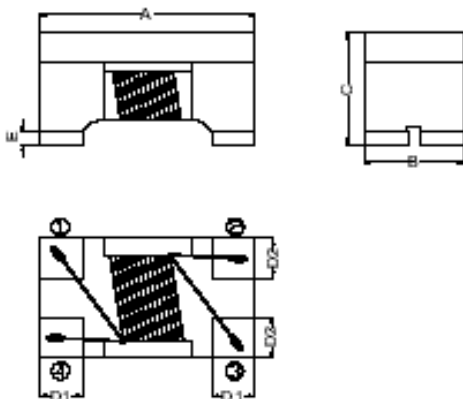
APPLICATIONS

- Common mode noise suppression of signal lines in high speed and high density digital equipment such as personal computers and peripherals.

PARTNUMBER

A: Series	
B: Dimension	A x B
C: Material	Lead Free
D: Impedance	900=90Ω
E: Packaging	T=Taping and Reel B=Bulk(Bags)
F: Rated Current	04=400mA
G: Lead Free Code	
H: ID Code	

DIMENSIONS



WCK	2012	F	900	T	04	F	V
A	B	C	D	E	F	G	H

Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
1608	1.6±0.2	0.8±0.2	1.1±0.1	0.33(typ.)	0.3(typ.)
2012	2.0±0.2	1.2±0.2	1.2±0.2	0.45(typ.)	0.4(typ.)
3216	3.2±0.2	1.6±0.2	2.0±0.2	0.6(typ.)	0.6(typ.)
3225	3.2±0.2	2.5±0.2	2.7±0.2	0.6(typ.)	0.9(typ.)
4532	5.8±0.3	2.4±0.2	2.5±0.2	0.7(typ.)	0.9(typ.)

WCK 1608

BW Part Number	Rated Current (mA)	Impedance (Ω)	DCR (Ω)max	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min
WCK1608F220T03	500	22 $\pm$ 25% at 100MHz	0.080	50	125	10M
WCK1608F450T04	500	45 $\pm$ 25% at 100MHz	0.110	50	125	10M
WCK1608F900T05	500	90 $\pm$ 25% at 100MHz	0.145	50	125	10M
WCK1608F121T06	500	120 $\pm$ 25% at 100MHz	0.175	50	125	10M
WCK1608F181T07	500	180 $\pm$ 25% at 100MHz	0.210	50	125	10M
WCK1608F251T08	400	250 $\pm$ 25% at 100MHz	0.280	50	125	10M

WCK 2012

BW Part Number	Rated Current (mA)	Impedance (Ω)	DCR (Ω)max	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min
WCK2012F670T04	400	67 $\pm$ 25% at 100MHz	0.25	50	125	10M
WCK2012F900T04	330	90 $\pm$ 25% at 100MHz	0.35	50	125	10M
WCK2012F121T04	370	120 $\pm$ 25% at 100MHz	0.30	50	125	10M
WCK2012F161T03	350	160 $\pm$ 25% at 100MHz	0.35	50	125	10M
WCK2012F181T03	330	180 $\pm$ 25% at 100MHz	0.35	50	125	10M
WCK2012F201T03	300	200 $\pm$ 25% at 100MHz	0.40	50	125	10M
WCK2012F221T03	300	220 $\pm$ 25% at 100MHz	0.40	50	125	10M
WCK2012F261T03	300	260 $\pm$ 25% at 100MHz	0.40	50	125	10M
WCK2012F361T03	280	360 $\pm$ 25% at 100MHz	0.45	50	125	10M

WCK 3216

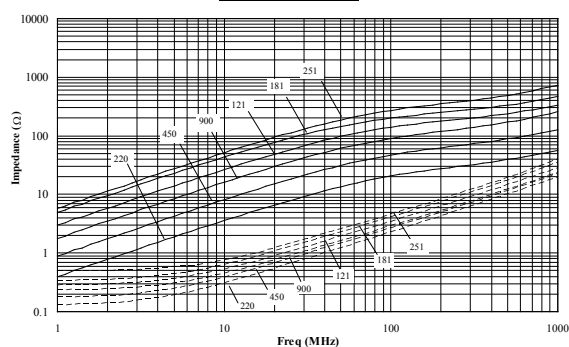
BW Part Number	Rated Current (mA)	Impedance (Ω)	DCR (Ω)max	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min
WCK3216F900T04	400	90 $\pm$ 25% at 100MHz	0.30	50	125	10M
WCK3216F121T03	350	120 $\pm$ 25% at 100MHz	0.35	50	125	10M
WCK3216F161T03	350	160 $\pm$ 25% at 100MHz	0.30	50	125	10M
WCK3216F221T03	300	220 $\pm$ 25% at 100MHz	0.45	50	125	10M
WCK3216F261T03	300	260 $\pm$ 25% at 100MHz	0.5	50	125	10M
WCK3216F361T03	300	360 $\pm$ 25% at 100MHz	0.6	50	125	10M
WCK3216F451T03	300	450 $\pm$ 25% at 100MHz	0.4	50	125	10M
WCK3216F601T03	260	600 $\pm$ 25% at 100MHz	0.8	50	125	10M
WCK3216F102T02	230	1000 $\pm$ 25% at 100MHz	1.0	50	125	10M
WCK3216F222T02	200	2200 $\pm$ 25% at 100MHz	1.2	50	125	10M

WCK 3225,4532

BW Part Number	Rated Current (mA)	Impedance (Ω)	DCR (Ω)max	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min
WCK3225F800T04	400	80 $\pm$ 25% at 100MHz	0.15	20	125	10M
WCK3225F161T03	350	160 $\pm$ 25% at 100MHz	0.20	20	125	10M
WCK3225F271T03	300	270 $\pm$ 25% at 100MHz	0.30	20	125	10M
WCK3225F102T02	200	1000 $\pm$ 25% at 100MHz	0.50	20	125	10M
WCK4532F601T15	1500	600 $\pm$ 25% at 100MHz	0.24	50	125	10M

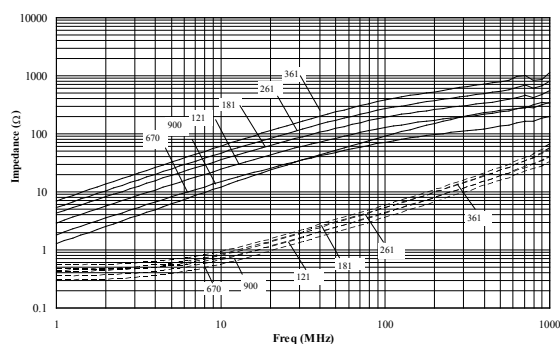
(1608) SERIES

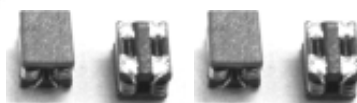
Z vs Freq Plot



(2012) SERIES

Z vs Freq Plot

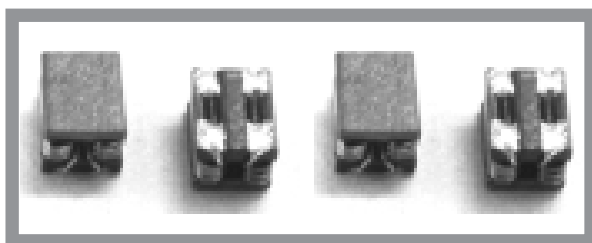




JBT series

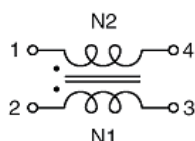
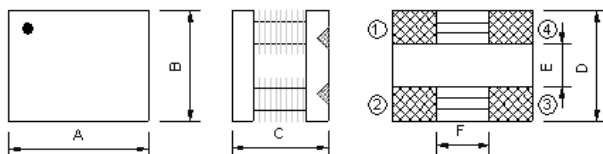
FEATURES

1. High common mode impedance at high frequency effects excellent noise suppression performance
2. The common mode choke coils structure enables noise suppression without degrading the signal
3. S.M.T Type.
4. Suitable for flow and reflow soldering.



DIMENSIONS

Size	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
0603	6.0±0.3	7.5±0.3	3.2±0.3	7.5(Typ)	2.0(Typ)	1.8(Typ)
0805	8.0±0.3	10.0±0.3	5.0±0.3	10(Typ)	4.0(Typ)	2.5(Typ)
1006	10.0±0.3	12.0±0.3	6.0±0.3	12(Typ)	4.8(Typ)	3.5(Typ)



APPLICATIONS

- Common mode noise suppression of signal lines in high speed and high density digital equipment as personal computers and peripherals.

PARTNUMBER

JBT	0603	701	T	04	F	V
A	B	C	D	E	F	G

A: Series

B: Dimension

C: Impedance

D: Packaging

T=Taping and Reel

B=Bulk(Bags)

E: Rated Current

04=400mA

F: Lead Free Code

G: ID CodeG: ID Code

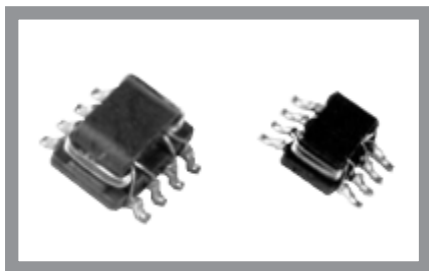
JBT 0603,0805,1006

BW Part Number	Inductance (μH) at 1.0KHz/1V	Rated Current (A)	Common Mode Impedance (Ω) Min			DC Resistance (Ω) Max
			At 1.0MHz	At 50MHz	At 100MHz	
JBT0603601T20	10.0	2.0	70	500	600	45
JBT0603701T20	15.0	2.0	75	600	700	50
JBT0805701T40	5.0	4.0	20	400	700	40
JBT0805901T40	6.0	4.0	40	600	900	4
JBT1006801T50	18.0	5.0	80	850	800	25
JBT1006102T50	25.0	5.0	90	900	1000	35
JBT1006122T50	50.0	5.0	150	1100	1200	45

T4W/T5W series

FEATURES

1. The T5W/T4W series has high common mode impedance in small size.
2. The T5W/T4W series is effective for common mode noise suppression in digital equipment which radiation is caused from cables.
3. Suitable for reflow soldering.
4. The products contain no lead and also support lead-free soldering.

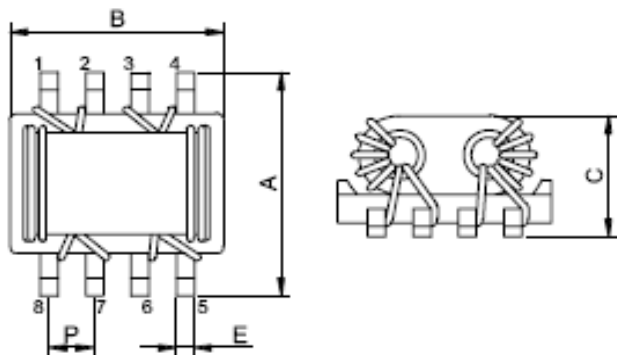


APPLICATIONS

1. T5W/T4W series is effective in high frequency noise suppression and suitable for suppression of radiation noise in signal cables. The dual winding type common mode choke coil structure enables noise suppression without degrading the signal.
2. T5W/T4W can be used as a common mode filter for USB2.0 & IEEE1394.

PARTNUMBER

DIMENSIONS



Size	A(mm)	B(mm)	C(mm)	D(mm)	P(mm)
5050	5.0± 0.3	3.5± 0.3	2.5 max.	0.3± 0.2	0.8 ± 0.2
6560	6.7 max.	6.1 max.	3.75 max.	0.5± 0.2	1.27± 0.2

T5W	6560	E	121	T	05	F	V
A	B	C	D	E	F	G	H

A : Series
 B : Dimension
 C : Material
 D : Impedance
 E : Packaging
 F : Rated Current
 G : Lead Free Code
 H : ID Code

AxB
 Lead Free
 121=120Ω
 T=Taping and Reel,
 B=Bulk(Bags)
 05=500mA



EMI/EMC Solution Parts

SMD / Common Mode Chokes



T4W 5050

BW Part Number	Rated Current (mA)	Common mode Impedance(Ω)	DCR (Ω) Max	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min.
T4W5050E900T05	500	90±25%at100MHz	0.10	100	100M
T4W5050E201T05	500	200±25%at100MHz	0.12	100	100M
T4W5050E301T05	500	300±25%at100MHz	0.15	100	100M

T5W 6560

BW Part Number	Rated Current (mA)	Common mode Impedance(Ω)	DCR (Ω) Max	Withstand Voltage (Vdc)	Insulation Resistance (Ω) min.
T5W6560E121T05	500	120±25%at100MHz	0.12	100	100M
T5W6560E301T05	500	300±25%at100MHz	0.12	100	100M
T5W6560E501T05	500	500±25%at100MHz	0.12	100	100M

