

# EMC Components

## EMC Filters for AC Power Supply Cased (Compact Size)

## ZCB-11, ZCB-M Series

### FEATURES

- The ZCB-11 and ZCB-M series EMC filters exhibit outstanding attenuation characteristics with respect to both differential mode and common mode noise components in the MF and HF bands.
- Leakage current is maintained at less than 0.5mA for the ZCB-M series and less than 0.75mA for the ZCB-11 series.
- Efficient manufacturing makes these filters highly cost-effective.
- Connection terminals employing Faston® #110 facilitate implementation and maintenance.

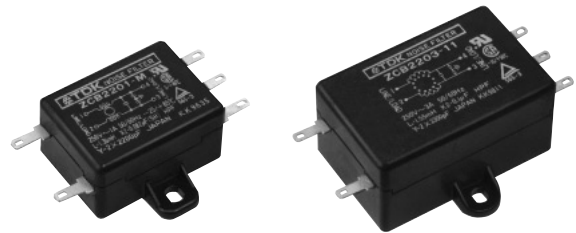
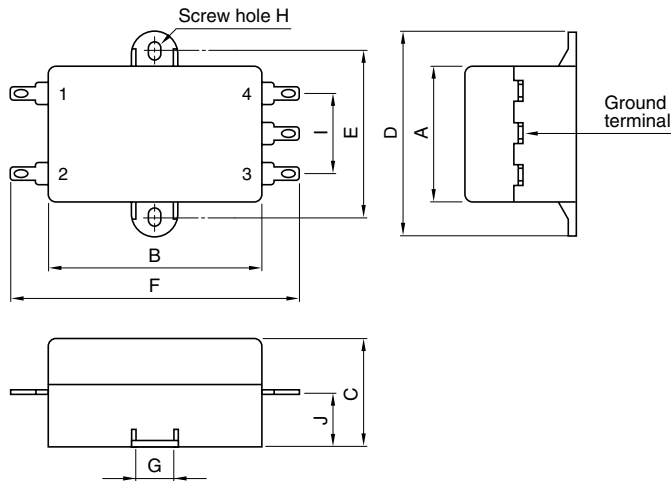
### SAFETY STANDARDS

Part No.	UL	CSA	TÜV
ZCB2203-11	E62388	LR76849C	R10026
ZCB2206-11	E62388	LR76849C	R10026
ZCB2201-M	E62388	LR76849C	R10026
ZCB2203-M	E62388	LR76849C	R10026

### APPLICATIONS

Digital applied devices (ECR, calculators, electronic scales, etc.), control devices, measurement devices, and other electronic equipment.

### SHAPES AND DIMENSIONS



Dimensions in mm

Part No.	A	B	C	D	E	F	G	H	I	J
ZCB2203-11 2206-11	32	50	25	50	40	68	8	M3	20	14
ZCB2201-M 2203-M	26	35	17.5	44	35	53	8	M3	17.5	9.3

• Case: plastic, terminal: Faston®#110 (t=0.5mm)

### ELECTRICAL CHARACTERISTICS

Part No.	ZCB2203-11	ZCB2206-11	ZCB2201-M	ZCB2203-M
Rated voltage Eac(V)	250	250	250	250
Rated current(A)	3	6	1	3
Test voltage Eac(V)[Between terminal and ground terminal]	1500	1500	1500	1500
Insulation resistance(MΩ) [DC. 500V, 1min/between terminal and ground terminal]	100min.	100min.	100min.	100min.
Leakage current(mA)[250V • 60Hz]	0.75max.	0.75max.	0.5max.	0.5max.
DC resistance(mΩ)	500max.	100max.	100max.	80max.
Operating temperature range(°C)[Including self-temperature rise]	-25 to +85	-25 to +85	-25 to +85	-25 to +85
With derating over(°C)	55	55	55	55
Temperature rise(°C)	30max.	30max.	30max.	30max.
Attenuation frequency range (MHz)[+5 to +35°C]	Differential mode at 30dB Common mode at 30dB	2 to 10 1 to 10	2 to 10 1 to 30	2.5 to 20 1 to 30
Weight(g)	45	45	22	22

• Faston® is a registered trademark of Tyco Electronics AMP Corp. Incorporated.

## EMC Components

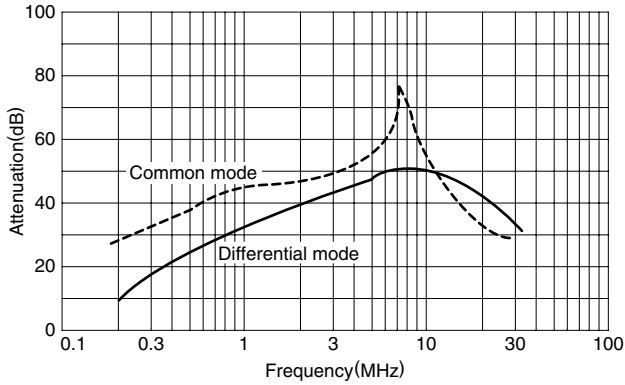
### EMC Filters for AC Power Supply Cased (Compact Size)

## ZCB-11, ZCB-M Series

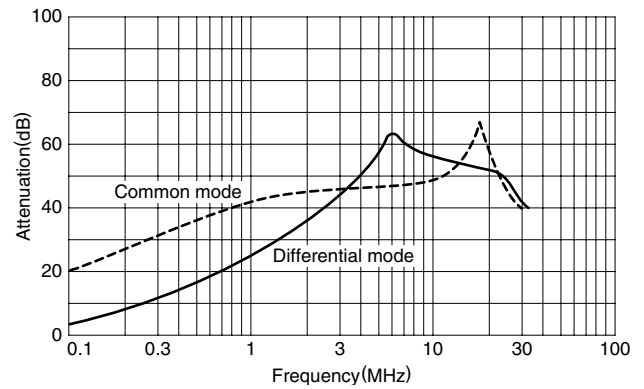
#### TYPICAL ELECTRICAL CHARACTERISTICS

##### ATTENUATION vs. FREQUENCY CHARACTERISTICS

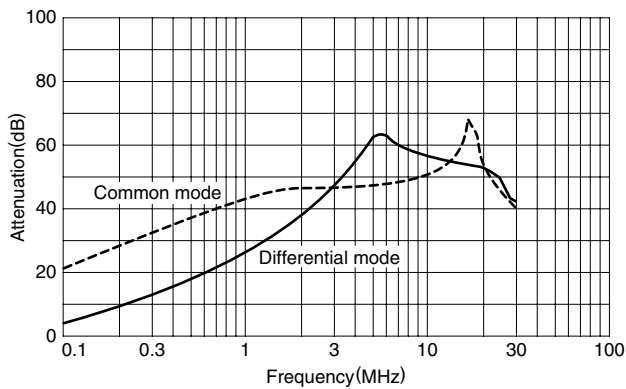
###### ZCB2203-11



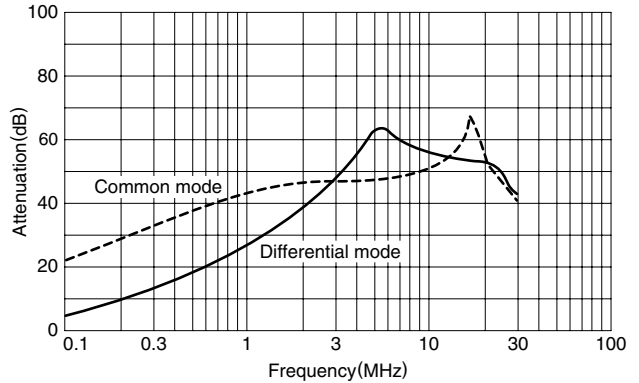
###### ZCB2206-11



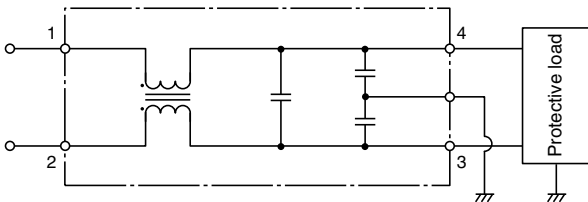
###### ZCB2201-M



###### ZCB2203-M



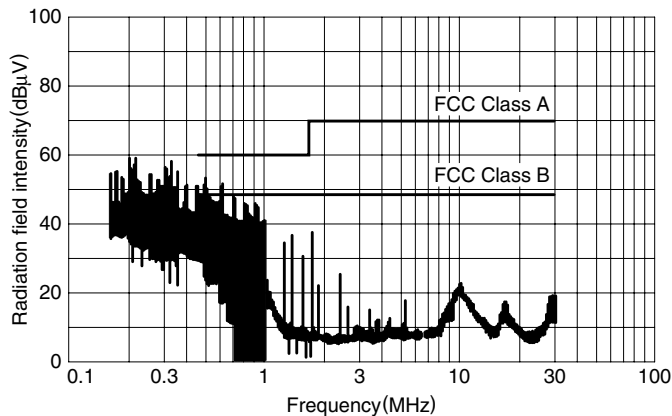
#### CIRCUIT DIAGRAM



#### TYPICAL APPLICATION EFFECTS

(Personal computer with CRT display)

##### WITHOUT EMC FILTER



##### WITH EMC FILTER (ZCB2203-11)

