

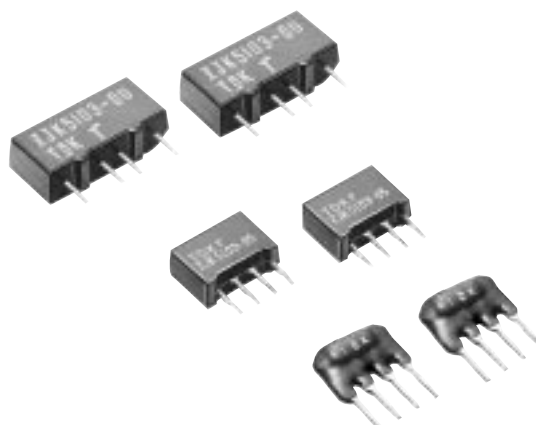
# EMC Components

## ZJK, ZJKD Series

### 3-Terminal Filters for Signal Line and DC Power Line SIP

#### FEATURES

- These SIP type EMC filters provide superior attenuation capabilities from MF to VHF bands. They are particularly effective in the microcomputer frequency range, where they provide attenuation characteristics far superior to tantalum capacitors.
- Its SIP type structure allows a wide variety of applications to IC substates.
- The use of chip capacitors results in a high degree of miniaturization, enabling these parts to be used in high-density circuit board designs.
- Transfer molding is used to strengthen types -00 and -05.



#### APPLICATIONS

OA equipment (Computers, terminal equipment, word processors, facsimiles, etc.)

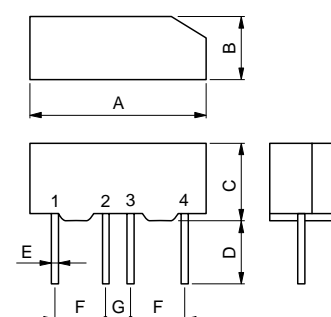
FA equipment (Robots, NC manufacturing machineries, process controllers, etc.)

AE equipment (Automotive engine control units, etc.)

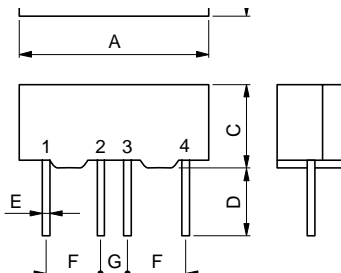
HE equipment (Personal computers and micro computerized digital equipment)

#### SHAPES AND DIMENSIONS

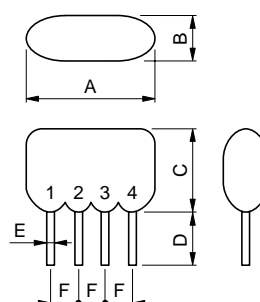
##### ZJK-00



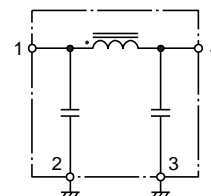
##### ZJK-05



##### ZJKD-15



#### CIRCUIT DIAGRAM



Dimensions in mm

Part No.	A	B	C	D	E	F	G
ZJK51R1-00, 51R5-00, 5103-00	17±1	5±1	8±1	5+1, -2	0.5×0.25t	5±0.3	2.5±0.3
ZJK51R1-05, 51R5-05, 5103-05	12.5max.	4.5max.	8max.	5+0, -2	0.5×0.25t	2.5±0.3	—
ZJKD51R1-15, 51R5-15, 5103-15	11.5max.	4.5max.	8max.	4.5±0.8	0.5×0.3t	2.5±0.3	—

• -00 and -05 types: Transfer molding, -15 type: Dip molding

#### ELECTRICAL CHARACTERISTICS

Part No.	ZJK51R1-00	ZJK51R5-00	ZJK5103-00	ZJK51R1-05 ZJKD51R1-15	ZJK51R5-05 ZJKD51R5-15	ZJK5103-05 ZJKD5103-15
Rated voltage E <sub>dc</sub> (V) max.	50	50	50	50	50	50
Rated current(A) max.	0.1	0.5	3	0.1	0.5	3
Withstand voltage E <sub>dc</sub> (V) [Between terminal No.1 to 2, No.3 to 4/5s]	125	125	125	125	125	125
Insulation resistance(MΩ)min.[DC. 50V, 1 min]	100	100	100	100	100	100
DC resistance(Ω)max.[Between terminal No.1 to 4]	11	0.45	0.02	11	0.45	0.02
Operating temperature range(°C)	-25 to +85	-25 to +85	-25 to +85	-25 to +85	-25 to +85	-25 to +85
Attenuation frequency range (MHz)[+5 to +35°C]	20dB 40dB	0.2 to 200 0.5 to 30	1 to 200 2 to 30	2 to 200 3 to 30	0.7 to 300 1.5 to 80	4 to 300 7 to 80
Interchangeable with existing products	ZJK51R1-02 FP51R11 FP51R3	ZJK51R5-01 ZJK51R5-02				

• No application of this series component may exceed any of the above operational criteria.

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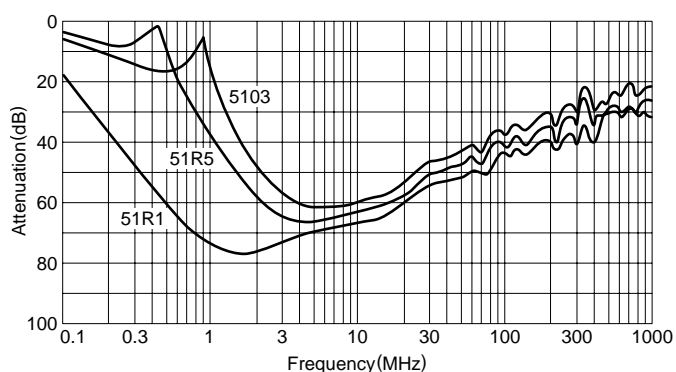
## ZJK, ZJKD Series

### 3-Terminal Filters for Signal Line and DC Power Line SIP

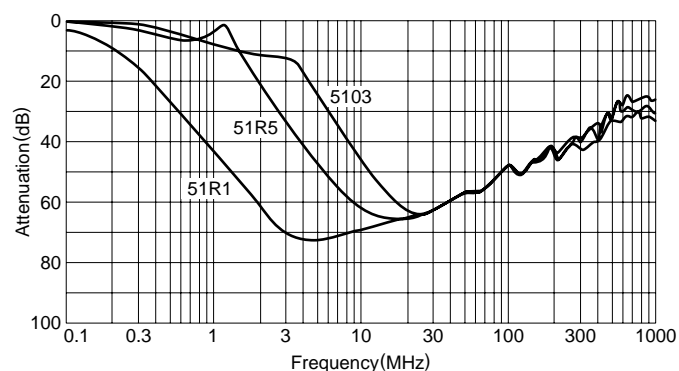
#### TYPICAL ELECTRICAL CHARACTERISTICS

##### ATTENUATION vs. FREQUENCY CHARACTERISTICS

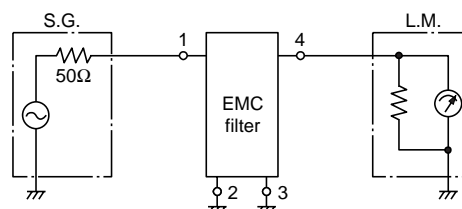
###### ZJK-00



###### ZJK-05, ZJKD-15



#### MEASURING CIRCUIT



$$\text{Attenuation} = 20 \log_{10} \frac{E_2}{E_1} \text{ (dB)}$$

E1: Set EMC filter in the circuit  
E2: Leave EMC filter in the circuit

2, 3: GND terminals

#### PACKAGING QUANTITIES

ZJK51R1-00	225 pieces
ZJK51R5-00	225 pieces
ZJK5103-00	225 pieces
ZJK51R1-05	250 pieces
ZJK51R5-05	250 pieces
ZJK5103-05	250 pieces
ZJKD51R1-15	500 pieces
ZJKD51R5-15	500 pieces
ZJKD5103-15	500 pieces