

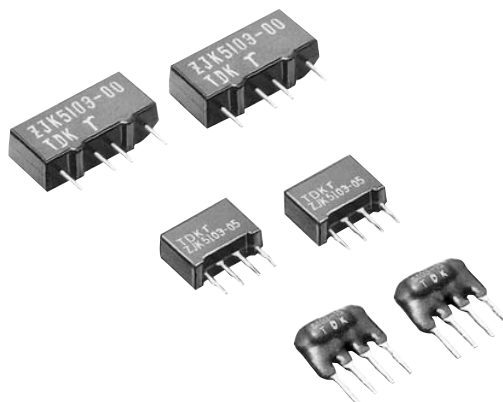
# 3-terminal Filters(SIP) For Signal Line / Power Line

Conformity to RoHS Directive

## ZJK, ZJKD Series

### 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.)

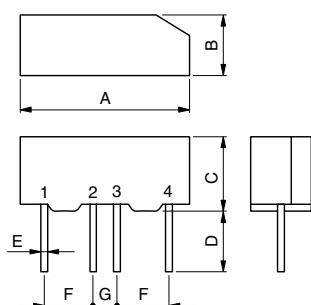
FA equipment (Robots, NC manufacturing machineries, process controllers, etc.)

AE equipment (Automotive engine control units, etc.)

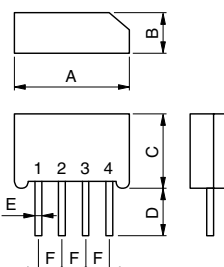
HE equipment (Personal computers and micro computerized digital equipment)

### SHAPES AND DIMENSIONS

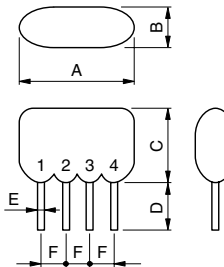
#### ZJK-00-01



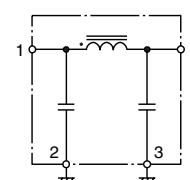
#### ZJK-05-01



#### ZJKD-15-01



### CIRCUIT DIAGRAM



Dimensions in mm

Part No.	A	B	C	D	E	F	G
ZJK51R1-00-01, 51R5-00-01, 5103-00-01*	17±1	5±1	8±1	5+1, -2	0.5×0.25t	5±0.3	2.5±0.3
ZJK51R1-05-01, 51R5-05-01, 5103-05-01	12.5max.	4.5max.	8max.	5+0, -2	0.5×0.25t	2.5±0.3	—
ZJKD51R1-15-01, 51R5-15-01, 5103-15-01	11.5max.	4.5max.	8max.	4.5±0.8	0.5×0.3t	2.5±0.3	—

\* The "-01" designation at the end of the product code indicates Lead-free compatible product.

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

### ELECTRICAL CHARACTERISTICS

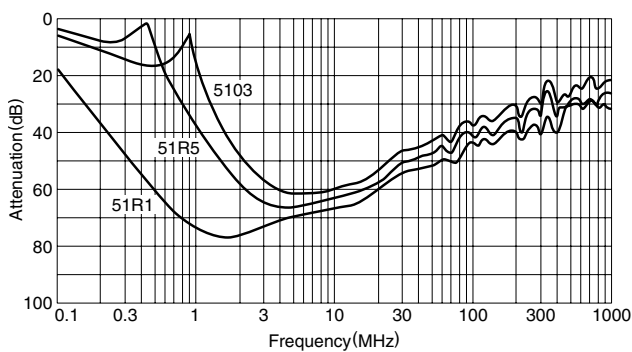
Part No.	ZJK51R1-00-01	ZJK51R5-00-01	ZJK5103-00-01	ZJK51R1-05-01 ZJKD51R1-15-01	ZJK51R5-05-01 ZJKD51R5-15-01	ZJK5103-05-01 ZJKD5103-15-01
Rated voltage Edc(V) max.	50	50	50	50	50	50
Rated current(A) max.	0.1	0.5	3	0.1	0.5	3
Withstand voltage Edc(V) [Between terminal No.1 to 2, No.3 to 4/5s]	125	125	125	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.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- All specifications are subject to change without notice.

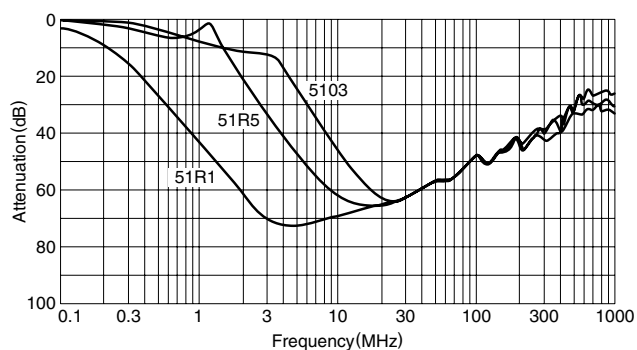
## TYPICAL ELECTRICAL CHARACTERISTICS

### ATTENUATION vs. FREQUENCY CHARACTERISTICS

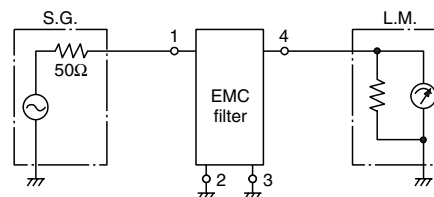
#### ZJK-00-01



#### ZJK-05-01, ZJKD-15-01



#### 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

ZJK51R1-00-01	225 pieces
ZJK51R5-00-01	225 pieces
ZJK5103-00-01	225 pieces
ZJK51R1-05-01	250 pieces
ZJK51R5-05-01	250 pieces
ZJK5103-05-01	250 pieces
ZJKD51R1-15-01	500 pieces
ZJKD51R5-15-01	500 pieces
ZJKD5103-15-01	500 pieces