### **EMC** Components

**ZJY Series** 

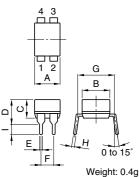
# Common Mode Choke Coils for Signal Line and DC Power Line DIP

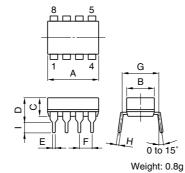
### FEATURES

- A common mode filter for distortion-free removal of noise from transmitted signals. Best common mode filter for transmission of high quality signals.
- Best filter for countering the common mode noise resulting from data signal processing by PCs, phone equipment, etc.
- Highly appropriate for IC board mounting due to DIP type structure.
- Due to a maximum current tolerance of 3A, can also be used to counter power line noise.

## SHAPES AND DIMENSIONS TRANSFER MOLD

ZJY51R5-2P, -2PB, -2PL ZJY5103-2PL ZJY51R5-4P , -M4PA



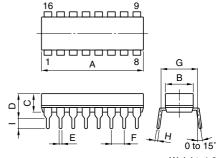


APPLICATIONS

Personal computers, telephones, LANs, ISDNs, digital PBXs, electronic games, CTVs, CD-ROM drives, 8mm video equipment, and other electronic devices.



#### PLASTIC CASE ZJY51R5-8PA



Weight: 1.6g

Dimensions in mm

Part No.	A max.	B max.	C max.	D max.	Е	F±0.25	G	Н	I
ZJY51R5-2P, -2PB, -2PL, 5103-2PL	5.5	6.86	4.57	5.84	0.5	2.54	7.62	0.25	2.54
ZJY51R5-4P, -M4PA	10.5	6.86	4.57	5.84	0.5	2.54	7.62	0.25	2.54
ZJY51R5-8PA	23.5	7	4.6	6.3	0.5	2.54	7.62	0.25	2.54

CIRCUIT DIAGRAMS ZJY51R5-2P, -2PB, -2PL ZJY5103-2PL	ZJY51R5-4P	ZJY51R5-M4PA	ZJY51R5-8PA
	L1 L2 L3 L4 8 7 6 5 0 0 1 2 3 4	L1 L2 L3 L4 8 7 6 5 • • • • • 1 2 3 4	L1 L2 L3 L4 L5 L6 L7 L8 16 15 14 13 12 11 10 9

#### **ELECTRICAL CHARACTERISTICS**

Part No.	ZJY51R5-2P, -2PB*1, -2PL*2, -4P	ZJY5103-2PL	ZJY51R5-M4PA	ZJY51R5-8PA
Rated voltage Edc(V)	50	50	50	50
Rated current (A)	2	3	0.5	0.5
Test voltage Edc(V) [Between terminals for 5s]	125	125	125	125
Insulation resistance ( $M\Omega$ ) [Between terminals at DC.50V for 1min]	100min.	100min.	100min.	100min.
DC resistance ( $\Omega$ ) [Each line]	0.06max.	0.03max.	0.2max.	0.06max.
Operating temperature range (°C)	–25 to +85	–25 to +85	–25 to +85	–25 to +85
Impedance ( $\Omega$ ) [+5 to +35°C]	200min. [20 to 300MHz]	100min. [100 to 300MHz]	200min. [20 to 300MHz]	200min. [20 to 300MHz]

\*1 This type has improved low-range characteristics.

\*<sup>2</sup> This type is wrapped separately (for communication lines).

### **EMC** Components

ZJY Series

Common Mode Choke Coils for Signal Line and DC Power Line DIP

10000

1000

100

10

Common mode

Differential mode

10

30

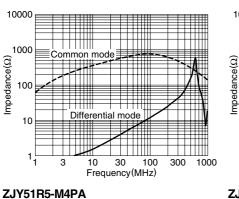
Frequency(MHz)

300

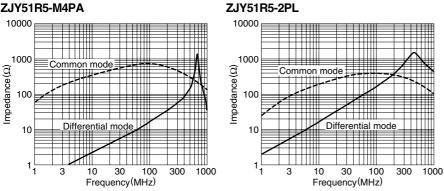
1000

100

### TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE CHARACTERISTICS (for 1 element) ZJY51R5-2P, -4P, -8PA ZJY51R5-2PB

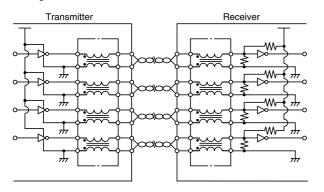




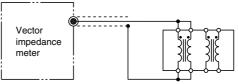


### TYPICAL APPLICATION

An application example showing how radiation noise is prevented when transmitter and receiver are connected via twisted pair cabling.



### MEASURING CIRCUIT



ZJY5103-2PL

Common mode

3

Differential mode

100

300

1000

30

Frequency(MHz)

10

10000

1000

100

10

Impedance( $\Omega$ )

Vector impedance meter(YHP 4191A equivalent) Measuring at each Common mode choke coil

### PACKAGING STYLE AND QUANTITIES

(Tube)

· · ·	
ZJY51R5-2P	80 pieces
ZJY51R5-2PB	80 pieces
ZJY51R5-2PL	80 pieces
ZJY5103-2PL	80 pieces
ZJY51R5-4P	40 pieces
ZJY51R5-M4PA	40 pieces
ZJY51R5-8PA	20 pieces