

# **Common Mode Filters(SMD)**

For high-speed differential signal line/General signal line

## **ZCYS** series

Type: ZCYS51R5

Issue date: December 2010

• All specifications are subject to change without notice.

• 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.

**会TDK** 

## **Common Mode Filters(SMD)** For High-speed Differential Signal Line / General Signal Line

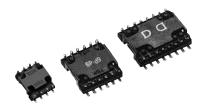
## **ZCYS Series**

### FEATURES

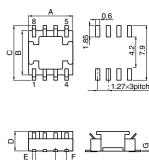
- · The ZCYS series common mode choke coils provide highly effective noise rejection characteristics without distorting the transmission signal. Especially, most available for USB interface circuit.
- · Well suited as a countermeasure against high-frequency radiation noise in small signal interface lines, this product is a spaceefficient solution for multiple-line cable applications.
- · A high level of miniaturization has been achieved with a maximum height of 2.5mm.

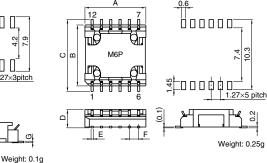
### **APPLICATIONS**

Personal computers, telephones, LANs, ISDNs, digital PBXs, word processors, electronic games, palm-sized computing devices, CTVs, CD-ROM drives, 8mm video cameras.

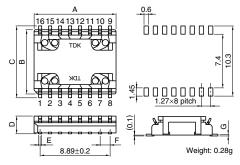


#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERNS ZCYS51R5-M4PAT-01 ZCYS51R5-M6PT-01





ZCYS51R5-M8PT-01



Dimensions in mm

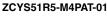
Part No.	A max.	В	C±0.5	D max.	E	F±0.15	G	
ZCYS51R5-M4PAT*1-01*2	5.7	5.7	7	2.5	0.4	1.27	0.2	
ZCYS51R5-M6PT-01	8.5	8.5	9.4	2.5	0.39	1.27	0.2	
ZCYS51R5-M8PT-01	11	8.5	9.4	2.5	0.39	1.27	0.2	

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\*1 T means the taping product.

\*2 The "-01" designation at the end of the product code indicates Lead-free compatible product.

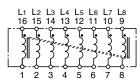
### **CIRCUIT DIAGRAMS**





# ZCYS51R5-M6PT-01 10

ZCYS51R5-M8PT-01



### **ELECTRICAL CHARACTERISTICS**

Part No.	ZCYS51R5-M4PAT-01	ZCYS51R5-M6PT-01	ZCYS51R5-M8PT-01
Rated voltage Edc(V)	50	50	50
Rated current (A)	0.5	0.5	0.5
Test voltage Edc(V) [Between terminals for 5s]	125	125	125
Insulation resistance ( $M\Omega$ ) [Between terminals at DC.50V for 1min]	100min.	100min.	100min.
DC resistance ( $\Omega$ ) [each line]	0.2max.	0.25max.	0.3max.
Operating temperature range(°C)	-25 to +85	-25 to +85	-25 to +85
Impedance (Ω) [+5 to +35°C]	200min. [100 to 500MHz]	200min. [50 to 300MHz]	100min. [100 to 300MHz]

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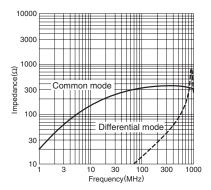
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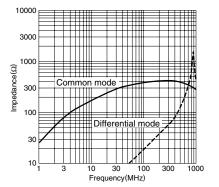


### TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS (for 1 element)

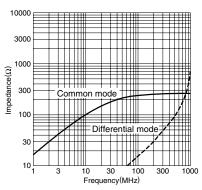
### ZCYS51R5-M4PAT-01

### ZCYS51R5-M6PT-01





### ZCYS51R5-M8PT-01



### PACKAGING STYLE AND QUANTITIES

Packaging style	Part No.	Quantity	
Taping	ZCYS51R5-M4PAT-01	3000 pieces/reel	
1 0	ZCYS51R5-M6PT-01	2000 pieces/reel	
	ZCYS51R5-M8PT-01	2000 pieces/reel	

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