

## 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.
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# Common Mode Filters(SMD)

Conformity to RoHS Directive

## For High-speed Differential Signal Line / General Signal Line

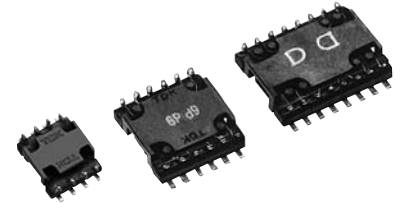
### ZCYS Series

#### 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 space-efficient solution for multiple-line cable applications.
- A high level of miniaturization has been achieved with a maximum height of 2.5mm.

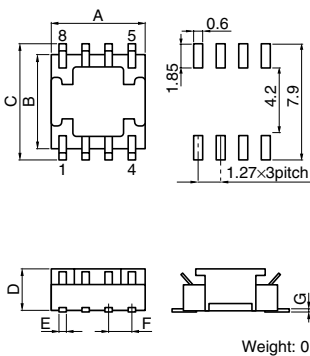
#### APPLICATIONS

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

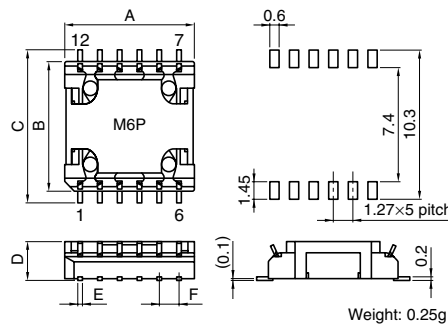


#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERNS

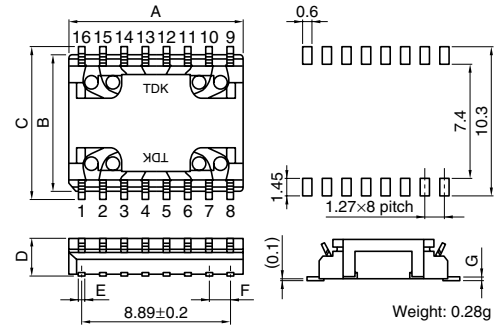
##### ZCYS51R5-M4PAT-01



##### ZCYS51R5-M6PT-01



##### ZCYS51R5-M8PT-01



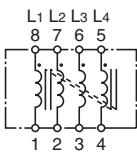
Part No.	Dimensions in mm						
	A max.	B	C±0.5	D max.	E	F±0.15	G
ZCYS51R5-M4PAT*1-01*2	5.7	5.7	7	2.5	0.4	1.27	0.2
ZCYS51R5-M6PT-01	8.5	8.5	9.4	2.5	0.39	1.27	0.2
ZCYS51R5-M8PT-01	11	8.5	9.4	2.5	0.39	1.27	0.2

\*1 T means the taping product.

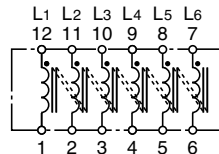
\*2 The "-01" designation at the end of the product code indicates Lead-free compatible product.

#### CIRCUIT DIAGRAMS

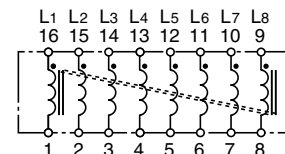
##### ZCYS51R5-M4PAT-01



##### ZCYS51R5-M6PT-01



##### ZCYS51R5-M8PT-01



#### ELECTRICAL CHARACTERISTICS

Part No.	ZCYS51R5-M4PAT-01	ZCYS51R5-M6PT-01	ZCYS51R5-M8PT-01
Rated voltage E <sub>dc</sub> (V)	50	50	50
Rated current (A)	0.5	0.5	0.5
Test voltage E <sub>dc</sub> (V) [Between terminals for 5s]	125	125	125
Insulation resistance (MΩ) [Between terminals at DC.50V for 1min]	100min.	100min.	100min.
DC resistance (Ω) [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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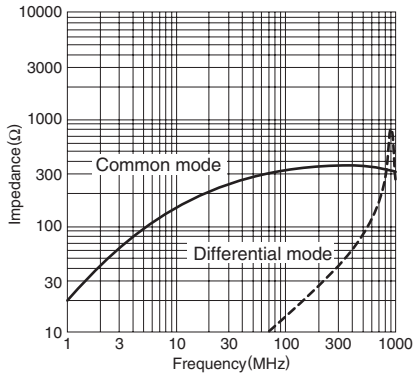
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## TYPICAL ELECTRICAL CHARACTERISTICS

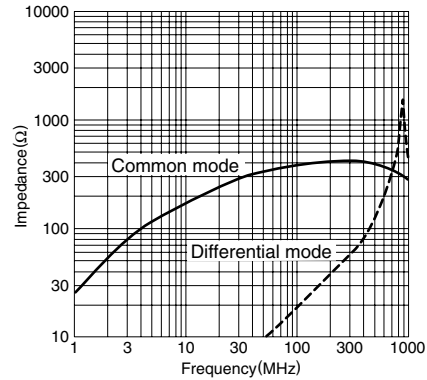
### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

(for 1 element)

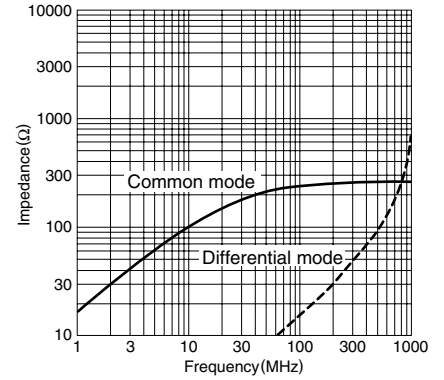
#### ZCYS51R5-M4PAT-01



#### ZCYS51R5-M6PT-01



#### ZCYS51R5-M8PT-01



### PACKAGING STYLE AND QUANTITIES

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