



# THE DATASHEET OF ZCYS51R5-M6PT-01



# Common Mode Filters

For high-speed differential signal line/general signal line

## ZCYS series

Type: ZCYS51R5

Issue date: September 2011

- 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

Conformity to RoHS Directive

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

### ZCYS Series ZCYS51R5

#### FEATURES

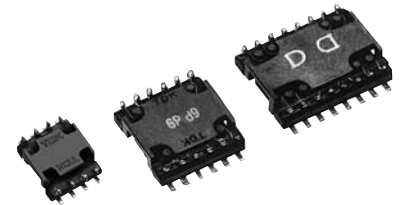
- The ZCYS series common mode filters provide highly effective noise rejection characteristics without distorting the transmission signal. Especially, most available for USB interface circuit.
- Well suited as a countermeasure against high-frequency radiation noise in small signal interface lines, this 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.

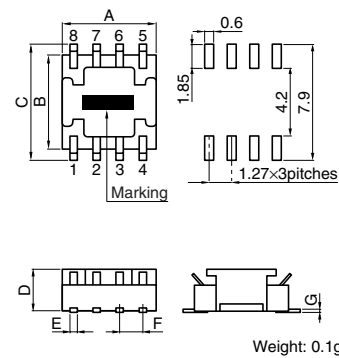
#### PACKAGING STYLE AND QUANTITIES

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

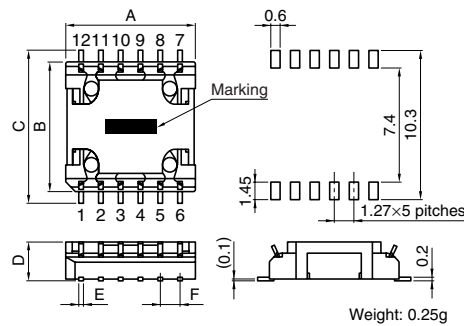


#### SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERNS

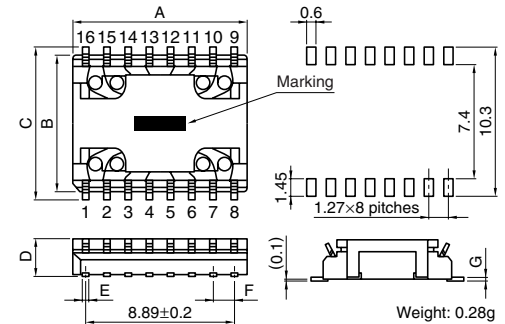
##### ZCYS51R5-M4PAT-01



##### ZCYS51R5-M6PT-01



##### ZCYS51R5-M8PT-01



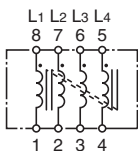
| Part No.              | A max. | B   | C±0.5 | D max. | E   | F±0.15 | G   |
|-----------------------|--------|-----|-------|--------|-----|--------|-----|
| ZCYS51R5-M4PAT*1-01*2 | 5.7    | 6.0 | 7     | 2.5    | 0.4 | 1.27   | 0.2 |
| ZCYS51R5-M6PT-01      | 8.5    | 8.5 | 9.4   | 2.5    | 0.4 | 1.27   | 0.2 |
| ZCYS51R5-M8PT-01      | 11     | 8.5 | 9.4   | 2.5    | 0.4 | 1.27   | 0.2 |

\*1 T means the taping product.

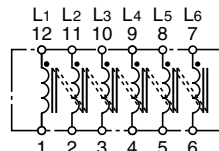
\*2 The "-01" designation at the end of the product code indicates Lead-free compatible product.

#### CIRCUIT DIAGRAMS

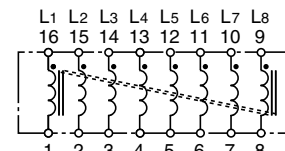
##### ZCYS51R5-M4PAT-01



##### ZCYS51R5-M6PT-01



##### ZCYS51R5-M8PT-01



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## ELECTRICAL CHARACTERISTICS

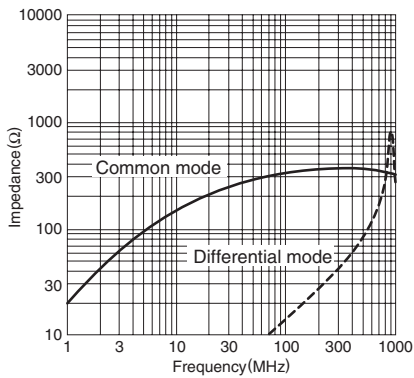
| Part No.                                                             | ZCYS51R5-M4PAT-01         | ZCYS51R5-M6PT-01          | ZCYS51R5-M8PT-01           |
|----------------------------------------------------------------------|---------------------------|---------------------------|----------------------------|
| 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)<br>[Between terminals for 5s]       | 125                       | 125                       | 125                        |
| Insulation resistance (MΩ)<br>[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)<br>[+5 to +35°C]                                       | 200min.<br>[50 to 500MHz] | 200min.<br>[50 to 300MHz] | 100min.<br>[100 to 300MHz] |

## TYPICAL ELECTRICAL CHARACTERISTICS

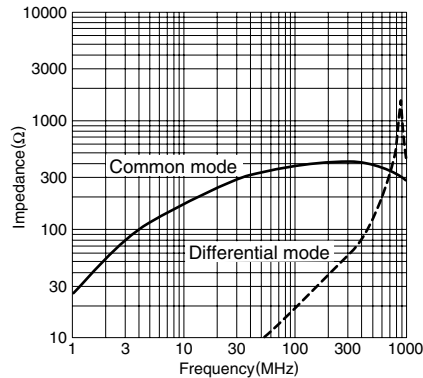
### IMPEDANCE vs. FREQUENCY CHARACTERISTICS

(for 1 element)

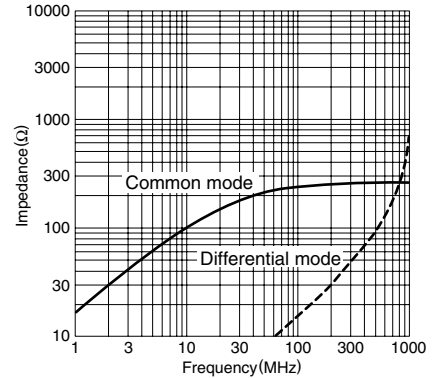
ZCYS51R5-M4PAT-01



ZCYS51R5-M6PT-01



ZCYS51R5-M8PT-01



## Looking for pricing, stock, or lifecycle information?

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 [TDK Corporation](#) Information

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