### **SMD COMMON-MODE CHOKES**

#### **ZCYS** series

#### **FEATURES**

- This is a common-mode choke coil that can reject noise without distorting the transmission signal.
- Effective to high frequency radiation noise from the interface line of small signals, this component can correspond collectively with multiple signal lines cable.
- A miniaturization has been achieved with 2.5mm max. in height.

#### **APPLICATIONS**

Personal computers, telephone, LAN, ISDN, digital PBX, word processors, game machines, palm size personal computers, CTV, CD-ROM, 8mm video cameras.

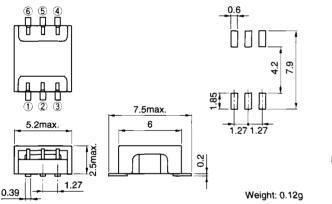
#### **TEMPERATURE AND HUMIDITY RANGES**

| Operating temperature range | -25 to +85°C  |
|-----------------------------|---|
| Storage temperature range   | −40 to +85°C  |
| Operating humidity range    | 10 to 95%RH (However, the maximum wet-bulb temperature is 38.5°C) |

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

ZCYS51R5-2PAT

## ZCYS51R5-M3PAT



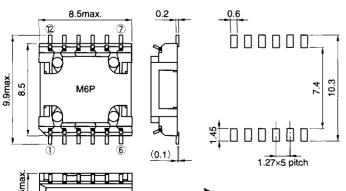
#### ZCYS51R5-2PAT



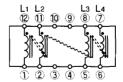
#### ZCYS51R5-M3PAT



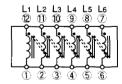
#### ZCYS51R5-M4PT ZCYS51R5-M6PT



#### ZCYS51R5-M4PT



#### ZCYS51R5-M6PT





TDK CORPORATION

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IN Specifications which provide more details for the proper and safe use of the described product are available upon request. All specifications are subject to change without notice.

Weight: 0.25g

Dimensions in mm

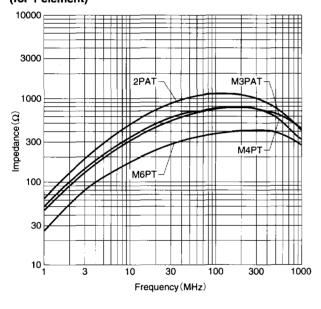
## **SMD COMMON-MODE CHOKES**

#### **ZCYS** series

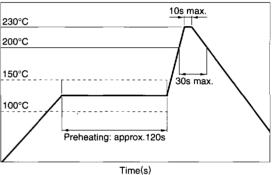
#### **ELECTRICAL CHARACTERISTICS**

| Part No.   | ZCYS51R5-2PAT         | ZCYS51R5-M3PAT  | ZCYS51R5-M4PT         | ZCYS51R5-M6PT        |
|--|-----------------------|-----------------|-----------------------|----------------------|
| Rated voltage Edc(V)   | 50                    | 50              | 50                    | 50                   |
| Rated current (A)  | 0.5                   | 0.5             | 0.5                   | 0.5                  |
| Test voltage Edc(V) [Between terminals for 5 seconds]                          | 125                   | 125             | 125                   | 125                  |
| Insulation resistance (M $\Omega$ ) [Between terminals at DC.50V for 1 minute] | 100min.               | 100min.         | 100min.               | 100min.              |
| DC resistance (Ω) [each line]  | 0.3max.               | 0.3max.         | 0.3max.               | 0.25max.             |
| Impedance (Ω) [+5 to +35°C]  | 400min.[20 to 300MHz] | 500min.[100MHz] | 200min.[50 to 300MHz] | 200min.[50 to 300MHz |

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



## RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



**PACKAGING QUANTITIES (Taping)** 

| Туре           | Quantities [1 reel] |
|----------------|---------------------|
| ZCYS51R5-2PAT  | 3000 pieces         |
| ZCYS51R5-M3PAT | 3000 pieces         |
| ZCYS51R5-M4PT  | 2000 pieces         |
| ZCYS51R5-M6PT  | 2000 pieces         |

