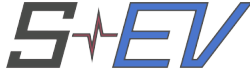


# DC Solid State Relay



SCHWARTZ-ELECTRONIC VERTRIEB GMBH

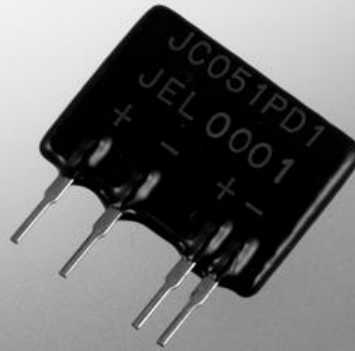


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# JCPD SERIES



## Features

- Small size, Resin casted molding type
- Available for PCB high-density packaging
- Max. load current at 1.2 A
- Dielectric strength between input and output at 2,500 V/1 min.
- 3 ~ 24 V input voltage
- Same design with JCP series

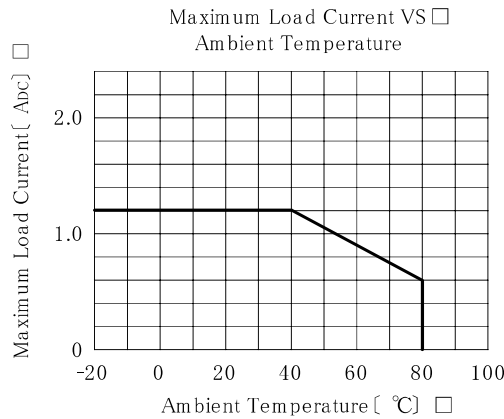
## Type Information

**J C 0 5 1 P D 1**

Rated Load Voltage  
 05 : 3 ~ 50 V

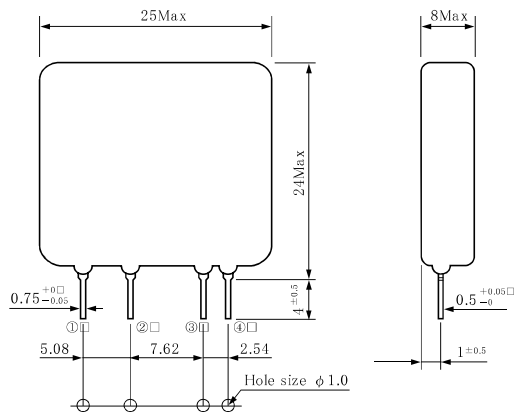
Max. load current  
 1 : 1.2 A

## Characteristics



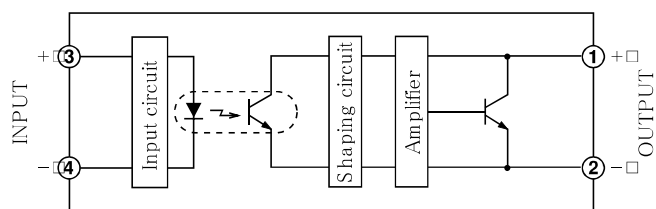
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 ※ Please contact JEL SYSTEM for further information.

Dimensions ( mm )



Dimensions For PCB Design

Equivalent Circuit



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■ Ratings

( Ta = 25 °C)

|                       | Item                        | Symbols           | JC051PD1   | Units                             |                  |
|-----------------------|-----------------------------|-------------------|--|-----------------------------------|------------------|
| Output                | Maximum Load Voltage        | V <sub>OMAX</sub> | 50   | V <sub>DC</sub>                   |                  |
|                       | Load Voltage Range          | V <sub>O</sub>    | Pure DC  | 3 ~ 50                            | V <sub>DC</sub>  |
|                       |                             |                   | Bridge Rectification   | 3.5                               | V <sub>rms</sub> |
|                       | Maximum Load Current        | I <sub>OMAX</sub> | 1.2  | A <sub>DC</sub> /A <sub>rms</sub> |                  |
| Surge Current Ratings | I <sub>SURGE</sub>          | 3( 1 sec)         | A  |                                   |                  |
| Input                 | Maximum Input Voltage       | V <sub>IMAX</sub> | 24   | V <sub>DC</sub>                   |                  |
|                       | Input Impedance             | R <sub>IN</sub>   | 1.5  | K Ω                               |                  |
| General               | Dielectric Strength         | V <sub>ISO</sub>  | 2,500 /1 min.( Between input and output)                     | V <sub>ACrms</sub>                |                  |
|                       | Isolation Resistance        | R <sub>ISO</sub>  | 10 <sup>8</sup> and above DC500V ( Between input and output) | Ω                                 |                  |
|                       | Operating Temperature Range | T <sub>OPR</sub>  | -20 ~ +80  | °C                                |                  |
|                       | Storage Temperature Range   | T <sub>STG</sub>  | -30 ~ +100   | °C                                |                  |

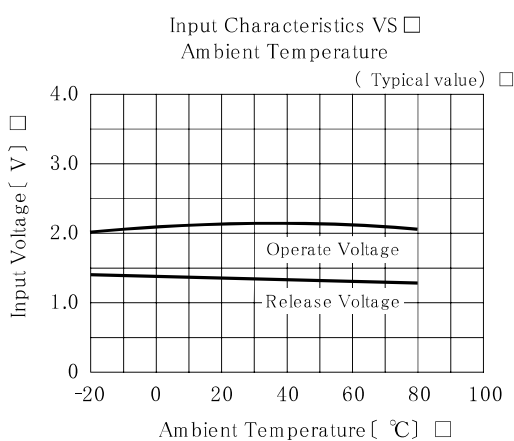
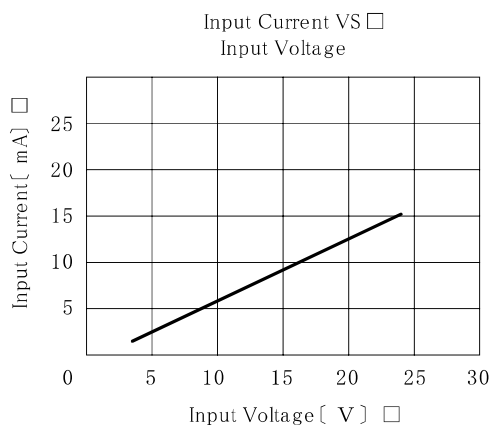
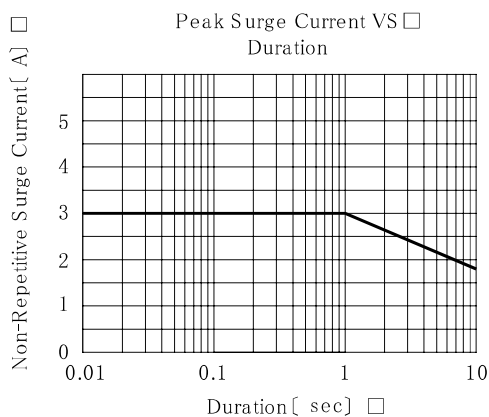
■ Electrical Characteristics

( Ta = 25 °C)

|         | Item                      | Symbols           | JC051PD1   | Units            |
|---------|---------------------------|-------------------|--|------------------|
| Output  | Off State Leakage Current | I <sub>LEK</sub>  | 10 and below ( V <sub>0</sub> = 50 V <sub>DC</sub> ) | μA <sub>DC</sub> |
|         | On State Voltage Drop     | V <sub>SAT</sub>  | 1.0 and below  | V <sub>DC</sub>  |
|         | Minimum Load Current      | I <sub>OMIN</sub> | 0.1  | mA               |
| Input   | Input Voltage Range       | V <sub>I</sub>    | 3.5 ~ 24   | V <sub>DC</sub>  |
|         | Operate Voltage           | V <sub>P</sub>    | 3.5 and below  | V <sub>DC</sub>  |
|         | Release Voltage           | V <sub>D</sub>    | 1.0 and above  | V <sub>DC</sub>  |
| General | Operate Time              | T <sub>ON</sub>   | 2 ms and below ( Resistance load)                    | /                |
|         | Release Time              | T <sub>OFF</sub>  | 2 ms and below ( Resistance load)                    | /                |
|         | Capacitance               | C <sub>IO</sub>   | 15 and below   | PF               |

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