

**HFS27 (DC type)****SOLID STATE RELAY**

File No.:E134481



File No.:R50087694

**Features**

- Bipolar transistor output
- Photo isolation
- 2500V dielectric strength
- Single in-line PCB package
- RoHS compliant

**INPUT (TA = 25°C)**

|                       |     |                 |
|-----------------------|-----|-----------------|
| Rated input voltage   | 05D | 5VDC            |
|                       | 12D | 12VDC           |
|                       | 24D | 24VDC           |
| Control voltage range | 05D | 4 to 6VDC       |
|                       | 12D | 9.6 to 14.4VDC  |
|                       | 24D | 19.2 to 28.8VDC |
| Must operate voltage  | 05D | 4VDC            |
|                       | 12D | 9.6VDC          |
|                       | 24D | 19.2VDC         |
| Must release voltage  |     | 1VDC            |
| Input current         | 05D | 20mA            |
|                       | 12D | 20mA            |
|                       | 24D | 16mA            |
| Input resistance      | 05D | 300Ω            |
|                       | 12D | 800Ω            |
|                       | 24D | 2000Ω           |

**OUTPUT (TA = 25°C)**

|                                |                                  |                                   |
|--------------------------------|----------------------------------|-----------------------------------|
| Type                           | <input type="checkbox"/> D-50D2T | <input type="checkbox"/> D-100D2T |
| Rated load voltage             | 4 to 50VDC                       | 4 to 100VDC                       |
| Load voltage range             | 3 to 60VDC                       | 3 to 100VDC                       |
| Max. transient overvoltage     | 66Vpk                            | 110Vpk                            |
| Load current                   | 0.1 to 2A                        |                                   |
| Max. surge current (10ms)      | 8Apk                             |                                   |
| Max. output on voltage drop    | 1.5Vrms                          |                                   |
| Max. output on leakage current | 0.1mA                            |                                   |
| Max. turn-on time              | 0.5ms                            |                                   |
| Max. turn-off time             | 1ms                              |                                   |

**GENERAL (TA = 25°C)**

|                                         |                                                             |
|-----------------------------------------|-------------------------------------------------------------|
| Dielectric strength (input to output)   | 2500VAC, 50/60Hz, 1min                                      |
| Insulation resistance (input to output) | 1000MΩ (at 500VDC)                                          |
| Max. capacitance (input to output)      | 8pF                                                         |
| Shock resistance                        | Acceleration: 1000m/s <sup>2</sup> , continuous surge: 11ms |
| Vibration resistance                    | 10 to 55Hz 1.5 mm DA                                        |
| Ambient humidity                        | 45% to 85% RH                                               |
| Operating temperature                   | -30°C to 85°C                                               |
| Storage temperature                     | -30°C to 100°C                                              |
| Unit weight                             | Approx. 20g                                                 |
| Recommended soldering temperature       | 260°C, 10s or 350°C, 5s                                     |

**DESCRIPTION**

HFS27 is a SPST-NO printed circuit mount SIP, DC output SSR. The HFS27 DC SSR range offers a choice of 50VDC, 100VDC versions. Input voltage specifications have 5VDC, 12VDC and 24VDC. Thanks to excellent structure designing, it has 2A load current under poor ventilation.



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2007 Rev. 1.00

## ORDERING INFORMATION

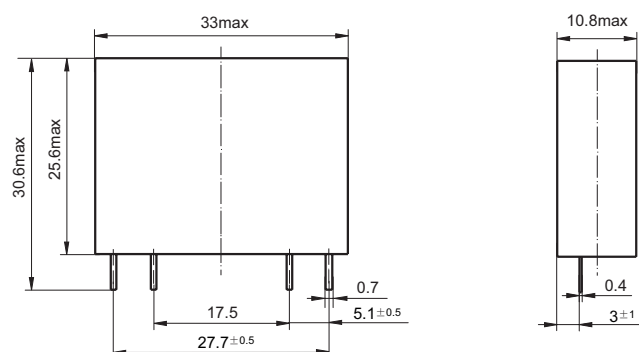
|                       |                                                                     |     |     |   |   |       |
|-----------------------|---------------------------------------------------------------------|-----|-----|---|---|-------|
| Type                  | HFS27 /                                                             | 05D | 50D | 2 | T | (XXX) |
| Input voltage         | 05D: 4 to 6VDC 12D: 9.6 to 14.4VDC<br>24D: 19.2 to 28.8VDC          |     |     |   |   |       |
| Load voltage          | 50D: 3 to 60VDC 100D: 3 to 100VDC                                   |     |     |   |   |       |
| Load current          | 2: 0.1 to 2A                                                        |     |     |   |   |       |
| Output component      | T: Transistor output                                                |     |     |   |   |       |
| Customer special code | Only for special requirements, e.g. (555) stands for RoHS compliant |     |     |   |   |       |

Notes: HFS27 is an environmental friendly product, please mark special code (555) when order.

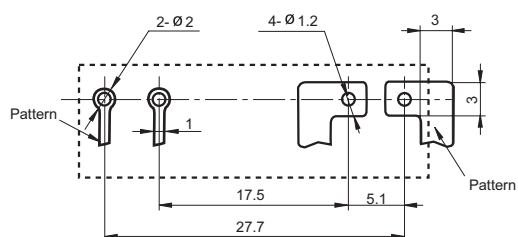
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

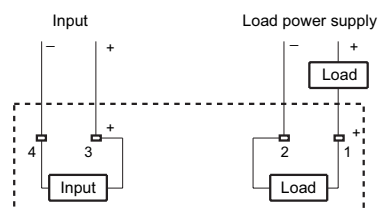
### Outline Dimensions



### PCB Layout (Bottom view)

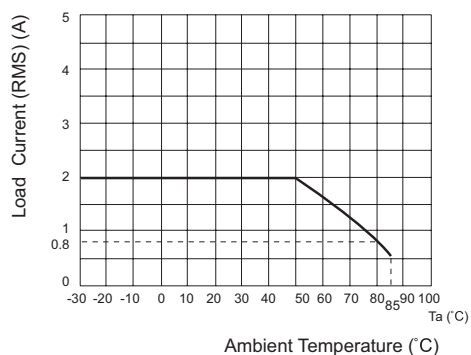


### Wiring Diagram (Bottom view)

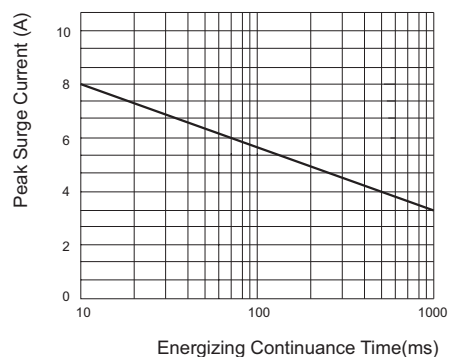


## CHARACTERISTIC CURVES

Max. Load Current vs. Ambient Temp. (2A)



Max. Permissible Non-repetitive Peak Surge Current vs. Continuance Time



### Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice.

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.