



Features

- 2500V dielectric strength
- LED status indicator
- Photo isolation
- Bipolar transistor output
- Printed circuit board mount
- RoHS compliant

INPUT (TA = 25°C)

| | | |
|---------------------------------|-----|-----------------|
| 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 | 05D | 1.0VDC |
| | 12D | |
| | 24D | |
| Max. reverse protection voltage | 05D | -6VDC |
| | 12D | -14.4VDC |
| | 24D | -28.8VDC |
| Max. input current | | 20mA |

DESCRIPTION

This SPST-NO printed circuit board mount SSR provides DC output switching in a high density package. The HFS40's DC input is compatible with 5, 12 and 24V logic systems. The relays include a LED indicator to provide input status information. The relays provide 2500VAC opto-isolation, between input and output. Encapsulation, thermally conductive epoxy.

APPLICATIONS

- I/O interface
- Programmable controllers

OUTPUT (TA = 25°C)

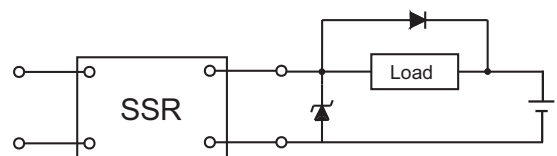
| | |
|----------------------------|-------------------|
| Load voltage range | 50D: 3 to 52.8VDC |
| | 100D: 3 to 125VDC |
| Load current range | 0.01 to 2A |
| Max. surge current (10ms) | 8A |
| Max. leakage current | 0.1mA |
| Max. on-state voltage drop | 1.5Vrms |
| Max. turn-on time | 1ms |
| Max. turn-off time | 1ms |
| Max. transient overvoltage | 50D: 80Vpk |
| | 100D: 125Vpk |

GENERAL (TA = 25°C)

| | | |
|---|------------------------|----------------|
| Dielectric strength | 2500VAC, 50/60Hz, 1min | |
| Insulation resistance (input to output) | 1000MΩ (at 500VDC) | |
| Max. capacitance (input to output) | 5pF | |
| Shock resistance | 1000m/s ² | |
| Ambient temperature | Operating | -30°C to 80°C |
| | Storage | -30°C to 100°C |
| Ambient humidity | 45% to 85% RH | |
| Unit weight | Approx. 18g | |

PRECAUTIONS

1. Soldering must be completed within 10 seconds at 260°C or less or within 5 seconds at 350°C or less.
2. The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, reduce the load current by half.
3. When using the HFS40 series for a DC load with a peak voltage of more than rated voltage, connect the load terminals of the relay to an inrush absorber (varistor).
4. Before connecting a load that generates a high surge current, such as a lamp load to the SSR, make sure that the SSR can withstand the surge current of the load.
5. The product data sheet shows the non-repetitive peak value of the surge current that flows through the SSR. Normally, use 1/2 the non-repetitive peak surge current as the standard value. If a surge current exceeding that value is expected, connect a quick-blowing fuse to protect the SSR.



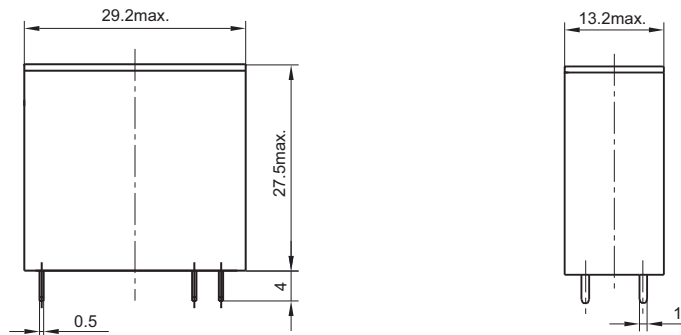
ORDERING INFORMATION

| | | | | | | | |
|-----------------------|---------------------------------|--|--|--|--|--|--|
| Type | HFS40 / 05 D- 50 D 2 T- L (XXX) | | | | | | |
| Input voltage | 05: 4 to 6V 12: 9.6 to 14.4V | | | | | | |
| | 24: 19.2 to 28.8V | | | | | | |
| Input voltage form | D: DC | | | | | | |
| Load voltage | 50: 50V 100: 100V | | | | | | |
| Load voltage form | D: DC | | | | | | |
| Load current | 2: 2A | | | | | | |
| Output component | T: Transistor output | | | | | | |
| LED indicator | L: With LED | | | | | | |
| Customer special code | | | | | | | |

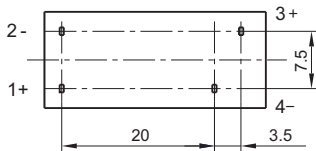
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

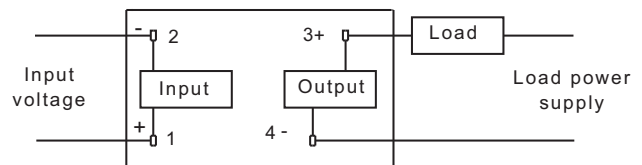
Outline Dimensions



PCB Layout (Bottom view)

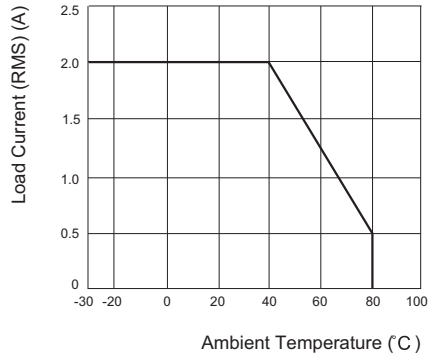


Wiring Diagram

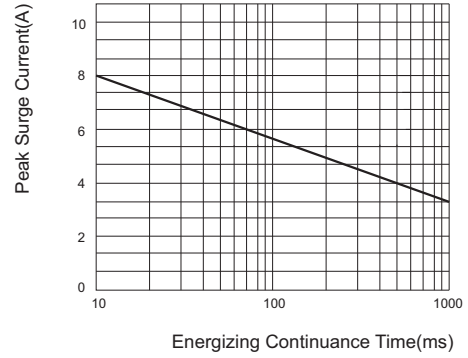


CHARACTERISTIC CURVES

Max. Load Current
vs. Ambient Temperature



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.