

### Features

- Dielectric strength 2500V
- LED status indicator
- Photo isolation
- Bipolar transistor output
- Printed circuit board mount
- Environmental friendly product (RoHS compliant)

### INPUT (Ta = 25°C)

Control voltage range	05D	4VDC to 6VDC
	12D	9.6VDC to 14.4VDC
	24D	19.2VDC 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
Input Resistance	05D	180Ω
	12D	680Ω
	24D	1.5KΩ

### OUTPUT (Ta = 25°C)

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

### GENERAL (Ta = 25°C)

Dielectric strength	2500VAC, 50Hz/60Hz, 1min	
Insulation resistance (input to output)	1000MΩ (at 500VDC)	
Max. capacitance (input to output)	5pF	
Shock resistance	980m/s <sup>2</sup>	
Ambient temperature	Operating	-30°C to 80°C
	Storage	-30°C to 100°C
Ambient humidity	45% to 85% RH	
Unit weight	Approx. 18g	

### DESCRIPTION

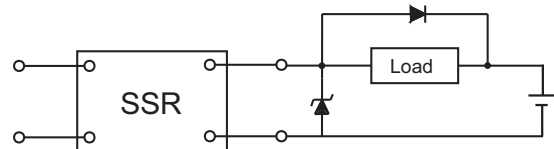
This SPST-NO printed circuit board mount SSR provides DC output switching in a high density package. The HFS40's DC input is compatible with 5V, 12V and 24V logic systems. The relays include a LED indicator to provide input status information. The relays provide 2500VAC opto-isolation, between input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

### APPLICATIONS

- I/O interface
- Programmable controllers

### PRECAUTIONS

1. Soldering must be completed within 10s at 260°C or less or within 5s 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.
6. Please do not use the relay beyond the descriptions in the data sheet. If it is a must to use it beyond descriptions, please contact Hongfa for more technical support.



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2010 Rev. 1.00

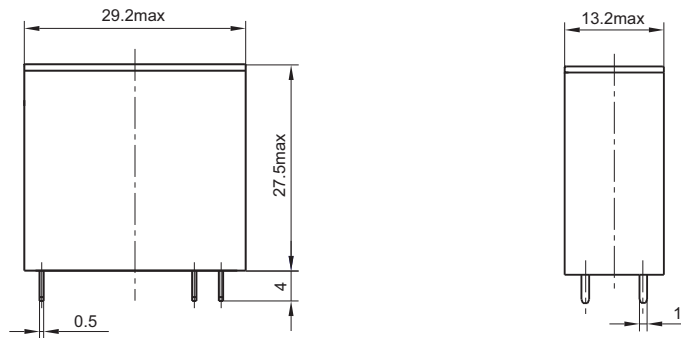
## ORDERING INFORMATION

Type	HFS40 / 05D- 50 D 2 T- L (XXX)					
Input voltage	05D: 4VDC to 6VDC 12D: 9.6VDC to 14.4VDC 24D: 19.2VDC to 28.8VDC					
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						

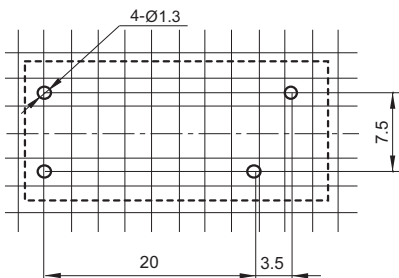
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

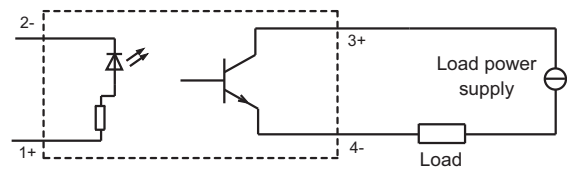
### Outline Dimensions



### PCB Layout (Bottom view)

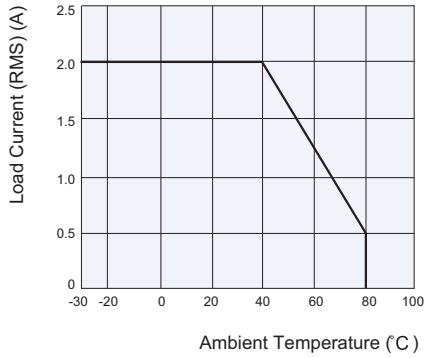


### Wiring Diagram

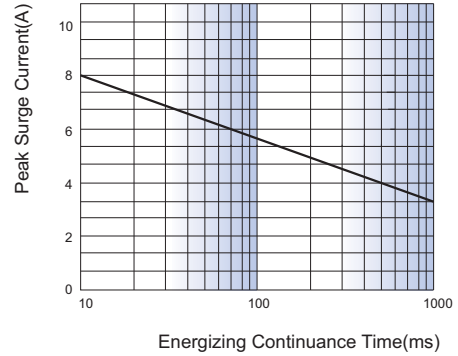


## CHARACTERISTIC CURVES

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.

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