HFS40 SOLID STATE RELAY

Features

- 2500V dielectric strength
- 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	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

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		980m/s²
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

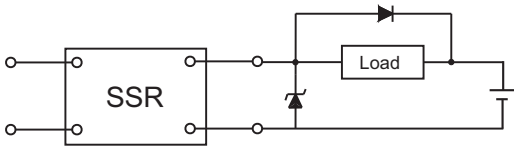
This SPST-NO printed circuit board mount SSR provides DC output switching in a high density package. The HFS40's DC input is compatible with 5,12 and 24V logic systems. The relays include a LED indicator to provide input status information. The relays provide 2500VAC opto -isolation, between input and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

APPLICATIONS

- I/O interface
- Programmable controllers

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

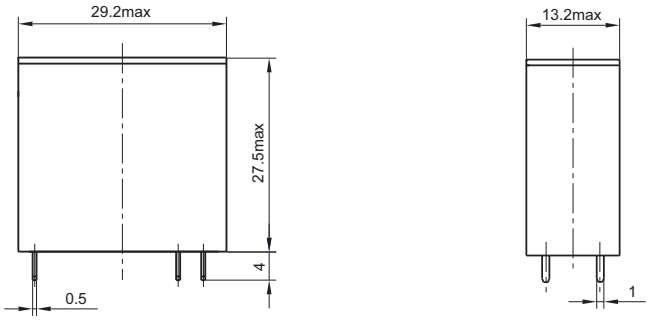
	HFS40 /	05	D-	50	D	2	T-	L	(XXX)

Type	
Input voltage	**05**: 4 to 6V **12**: 9.6 to14.4V **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	

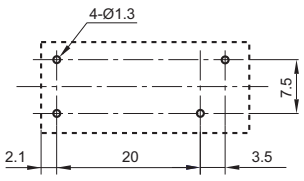
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

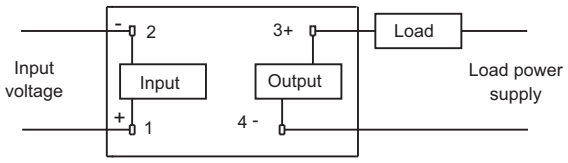
Outline Dimensions



PCB Layout
(Bottom view)

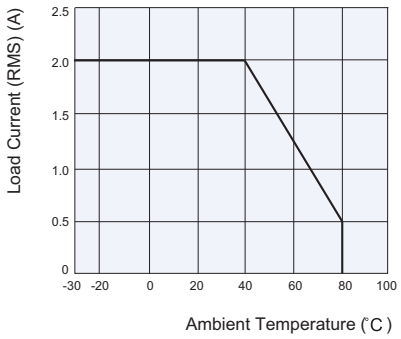


Wiring Diagram



CHARACTERISTIC CURVES

Max. Load Current
vs. Ambient Temperature



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