



DESCRIPTION

KS40 is a set of SPST-NO AC output PCB mount DIP type SSR. The SSR has three DC input options 5VDC, 12VDC and 24VDC for selection and includes an LED indicator to display working status. And it has two load current ratings (2A and 3A) and two load voltage options (220VAC and 380VAC) available for choice.

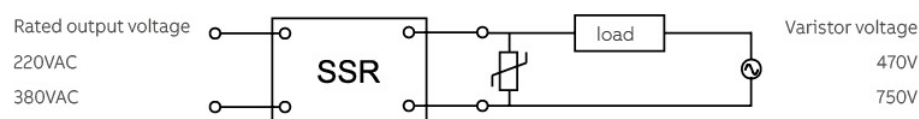
KS40 can realize the isolation and control of strong current by using the weak current and the level transition as well, and can be easily connected to computer and a variety of digital circuit interfaces. The SSR has been widely applied to the industrial automation fields, such as various DC motors, DC power supplies, electromagnetic devices, intelligent instruments and so on, and it also can be used as the driver for all high power output devices under damp corrosive and explosion proofing conditions.

FEATURES

- ◆ TRIAC output
- ◆ Photoelectric isolation
- ◆ LED status indicator
- ◆ Dielectric strength 2500V
- ◆ PCB mount
- ◆ Pin-compatible with standard package EMR

PRECAUTIONS

1. Soldering must be completed within 10s at 260°C or 5s at 350°C.
2. If poor ventilation is unavoidable, the load current must be derated.
3. Make sure the wiring of input and output and the input polarity are correct so as to avoid any damage to the SSR.
4. Please do not use the SSR exceeding the limitation which is specified on this datasheet.
5. If the output transient voltage exceeds the nominal value, a varistor should be connected to the SSR's output terminal in parallel to prevent the SSR being broken down. Please refer to the recommended varistor voltage as below:



SELECTION GUIDE

KS40/	5-	24	Z	2	-L	(XXX)
Type	Control voltage	Load voltage	Switching mode	Load current	LED indicator	Customer special code
	5: 5VDC 12: 12VDC 24: 24VDC	24: 240VAC 38: 380VAC	Z: Zero-cross P: Random	2: 2A 3: 3A	L: Included	

INPUT SPECIFICATIONS (Ta = 25°C)

Control voltage range	5	4 ~ 6VDC
	12	9.6 ~ 14.4VDC
	24	19.2 ~ 28.8VDC
Must turn-on voltage	5	4VDC
	12	9.6VDC
	24	19.2VDC
Must turn-off voltage		1.0VDC
Max. reverse protection voltage	5	-6VDC
	12	-14.4VDC
	24	-28.8VDC
Max. input current		20mA

OUTPUT SPECIFICATIONS (Ta = 25°C)

Load voltage range	KS40/□-24-□□-L	48 ~ 280VAC
	KS40/□-38-□□-L	48 ~ 440VAC
Load current range	KS40/□-□□2-L	0.1 ~ 2A
	KS40/□-□□3-L	0.1 ~ 3A
Max. surge current (10ms)	KS40/□-□□2-L	25A _{pk}
	KS40/□-□□3-L	120A _{pk}
Max. I ² t for fusing (10ms)	KS40/□-□□2-L	3.1A ² s
	KS40/□-□□3-L	78A ² s
Max. off-state leakage current		5mA
Max. on-state voltage drop		1.5V _{r.m.s.}
Max. turn-on time	Zero-cross	1/2 Cycle + 1ms
	Random	1ms
Max. turn-off time		1/2 Cycle + 1ms
Max. transient voltage	KS40/□-24-□□-L	600V _{pk}
	KS40/□-38-□□-L	800V _{pk}
Min. off-state dv/dt		100V/μs
Min. power factor		0.5

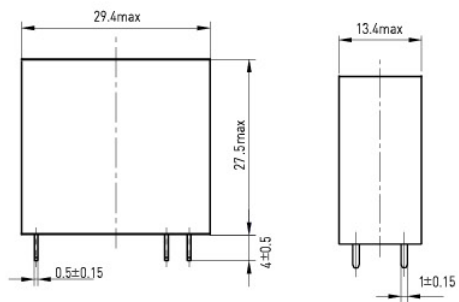
GENERAL SPECIFICATIONS (Ta = 25°C)

Dielectric strength (input /output)	2500VAC, 50Hz/60Hz, 1min
Insulation resistance	1000MΩ (500VDC)
Max. capacitance (input / output)	8pF
Vibration resistance	10~ 55Hz, 1.5mm, DA
Shock resistance	980m/s ²
Operating temperature	-30 ~ 80°C
Storage temperature	-30 ~ 100°C
Ambient humidity	45% ~ 85% RH
Unit weight	Approx. 18g

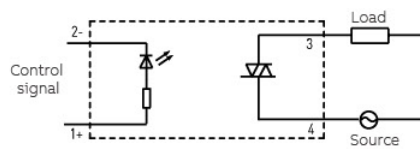
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB LAYOUT

Unit: mm

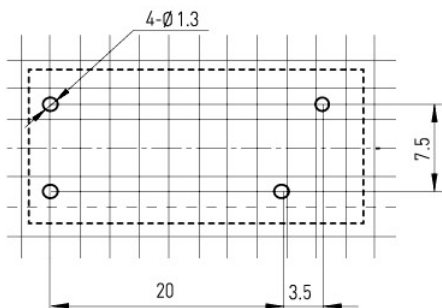
Outline Dimensions



Wiring Diagram

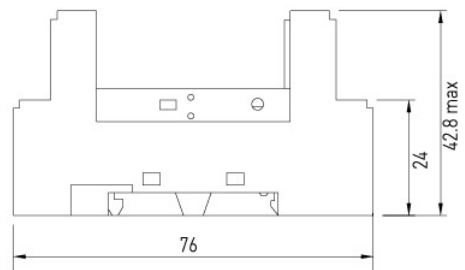


PCB Layout (Bottom view)



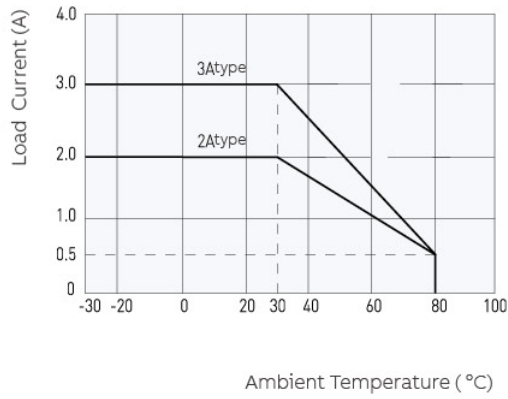
Socket Layout

Socket Model: KR540/SC



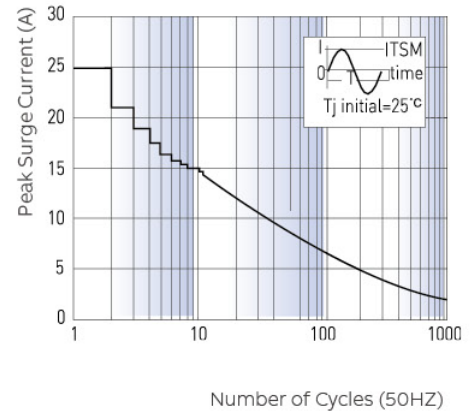
CHARACTERISTIC CURVES

Max. Load Current vs. Ambient Temperature



Max. Permissible Non-repetitive Peak Surge Current vs. Number of Cycles

(2A Type)



(3A Type)

