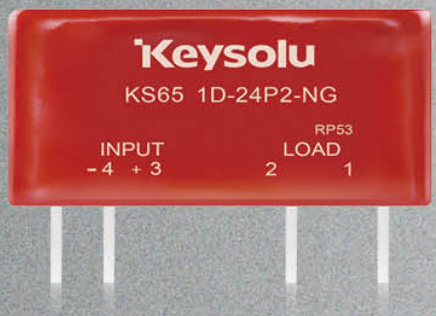
PCB Mount

KS65

Solid State Relay



CE

DESCRIPTION

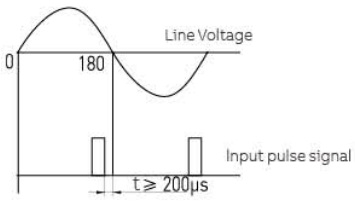
KS65 is a set of SPST-NO AC output PCB mount Mini-SIP type SSR. The SSR has two DC input options 4~10VDC and 10~16VDC for selection and provides photoelectric isolation between input and output and offers two alternative switching modes: zero-cross turn-on and random turn-on, suitable for the control of electromagnetic valves, motors, electric incandescent lamps, etc.

FEATURES

- TTL compatible
- Load current 0.1~2A
- Dielectric strength 2500V
- PCB mount

PRECAUTIONS

1. Soldering must be completed within 10s at 260°C or 5s at 350°C.
2. The SSR's case serves to dissipate the heat generated by the SSR itself. If poor ventilation is unavoidable, the load current must be derated. Please refer to the curve of Max. Load Current vs. Ambient Temperature for derating.
3. The internal input circuit of SSR does not have the reverse polarity protection, thus make sure the wiring of input and output and the input polarity are correct so as to avoid any damage to the SSR.
4. 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. The recommended varistor voltage is 470V.
5. When the SSR is used for phase modulation, the time interval between the negative edge of the input pulse signal and the line voltage zero crossing point must last over 200μs, or it may be out of control.



6. Please do not use the SSR exceeding the limitation which is specified on this datasheet.

SELECTION GUIDE

KS65 /	1D-	24	Z	2	-N	G	(XXX)
Type	Input voltage	Load voltage	Switching mode	Load current	RC snubber	Encapsulation type	Customer special code
	1D: 4-10 VDC 2D: 10-16 VDC	24: 240VAC	Z: Zero-cross P: Random	1R5: 1.5A 2: 2A	N: Not included	G: Epoxy	

INPUT SPECIFICATIONS (Ta = 25°C)

Input voltage range	1D	4 ~ 10VDC
	2D	10 ~ 16VDC
Must turn-on voltage	1D	4VDC
	2D	10VDC
Must turn-off noltage	1D	1VDC
	2D	1VDC
Input current (typical value)	1D	12mA@5VDC
	2D	11mA@12VDC
Input impedance	1D	330Ω
	2D	1kΩ

OUTPUT SPECIFICATIONS (Ta = 25°C)

Load voltage range		48 ~ 280VAC
Load current		0.025 ~ 2A
Max. surge current (10ms)		80Apk
Max. I^2t (10ms)		$32A^2s$
Max. off-state leakage current		0.1mA
Max. on-state voltage drop		1.5Vr.m.s.
Max. turn-mntime	Zero-cross	1/2 Cycle + 1ms
	Random	1ms
Max. turn-off time		1/2 Cycle + 1ms
Max. transient voltage		600Vpk
Min. off-state dv/dt		100V/μs

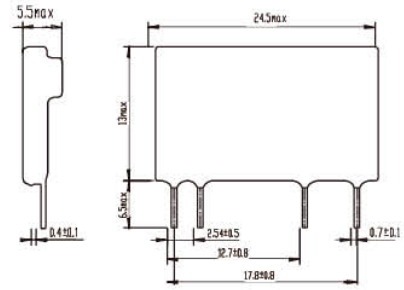
GENERAL SPECIFICATIONS (Ta = 25°C)

Dielecteic strength (input /output)	2500VAC, 50~60Hz, 1min
Insulation resistance	1000MΩ (500VDC)
Vibration resistance	10 ~ 55Hz, 1.5mm, DA
Shock resistance	980m/s²
Operating Temperature	-30 ~ 80℃
Storage Temperature	-30 ~ 100℃
Ambient humidity	45% ~ 85% RH
Unit weight	Approx. 5g

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

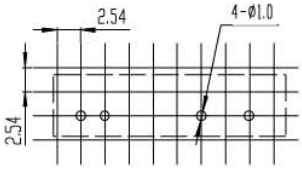
Unit: mm

Outline dimesions

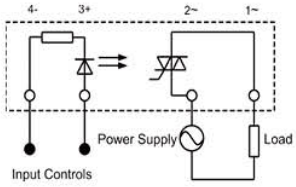


PCB layout

(Bottom view)

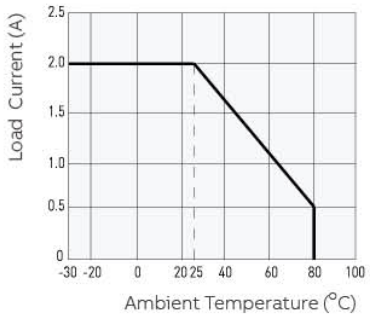


Wiring Diagram



CHARACTERISTIC CURVES

Max. Load Current
vs. Ambient Temperature



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