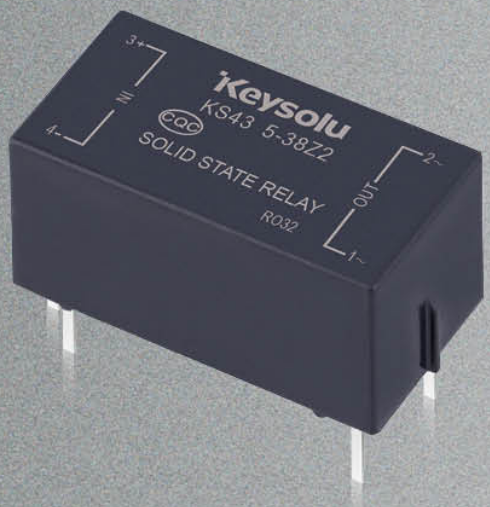
PCB Mount

KS43

Solid State Relay



CertificateNO.:CQC1200 1086380

DESCRIPTION

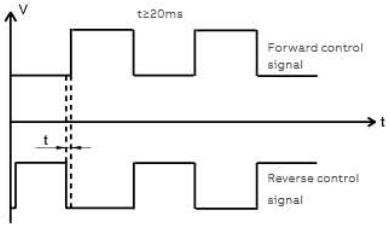
KS43 is a set of SPST-NO AC output PCB mount Mini-DIP horizontal type SSR. The SSR has three DC input options 5VDC, 12VDC and 24VDC for selection with load current range 0.1~2A and load voltage range 48~440VAC, suitable for the motor reversing control, electromagnetic valves, gas pumps and various industrial control applications.

FEATURES

- Load voltage 48~440VAC
- Load current 2A
- Photoelectric isolation
- Dielectric strength 4000V
- Built-in RC snubber circuit
- Dual-in-line PCB mount

PRECAUTIONS

1. Soldering must be completed within 10s at 260°C or 5s at 350°C.
2. 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.
3. The SSR is a kind of power device, and the heat dissipation should be taken into full consideration. 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.
4. When the SSR is applied to motor reversing applications, a varistor should be connected to the SSR's output terminal in parallel to prevent the SSR being broken down.
5. When the SSR is applied to motor reversing applications, the time interval between the forward and reverse switching control signals must last over 20ms.



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

SELECTION GUIDE

KS43	5-	38	Z	2	-T	(XXX)
Type	Control voltage	Load voltage	Switching mode	Load current	Termination	Customer special code
	5: 5VDC 12: 12VDC 24: 24VDC	38: 380VAC	Z: Zero-cross P: Random	2: 2A	Nil: Standard T: T type	

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
Max. input current		25mA
Input resistance	5	250Ω
	12	720Ω
	24	1.64kΩ
Must turn-off voltage		1VDC

OUTPUT SPECIFICATIONS (Ta = 25°C)

		□-38□2
Load voltage range		48 ~ 440VAC
Max. transient voltage		800Vpk
Load current range		0.1 ~ 2A
Max. surge current (10ms)		40Apk
Max. I^2t for fusing (10ms, A^2s)		8
Max. on-state voltage drop		1.5Vr.m.s.
Max. off-state leakage current		5mA
Min. off-state dv/dt		200V/μs
Max. turn-on time		Zero-cross: 1/2 Cycle + 1ms Random: 1ms
Max. turn-off time		1/2 Cycle + 1ms
Frequency range		47 ~ 63Hz
Min. power factor		0.5

GENERAL SPECIFICATIONS (Ta = 25°C)

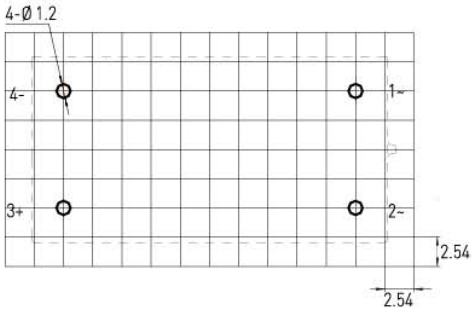
Dielectric strength (input/output)	4000VAC, 50~60Hz, 1min
Insulation resistance (input/output)	1000MΩ (500VDC)
Max. capacitance (input/output)	8pF
Shock resistance	Acceleration 980m/s², continuous surge 6ms
Vibration resistance	10~55Hz, 1.5mm, DA
Ambient humidity	45% ~ 85% RH
Operating temperature	-30 ~ 85℃
Storage temperature	-30 ~ 100℃
Unit weight	Approx. 15g

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB LAYOUT

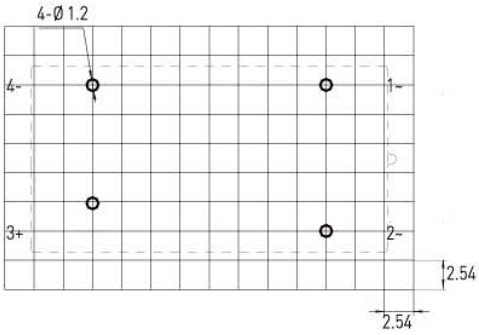
Unit: mm

PCB Layout (Bottom view)

Standard type



T type

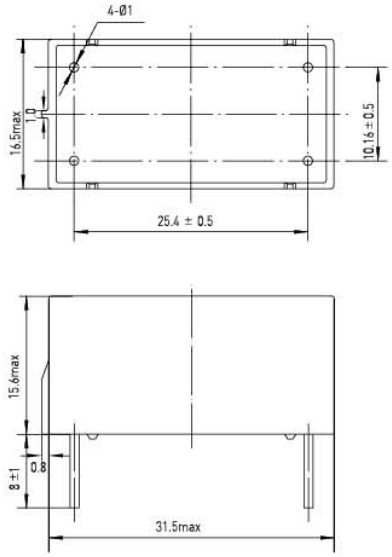


OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB LAYOUT

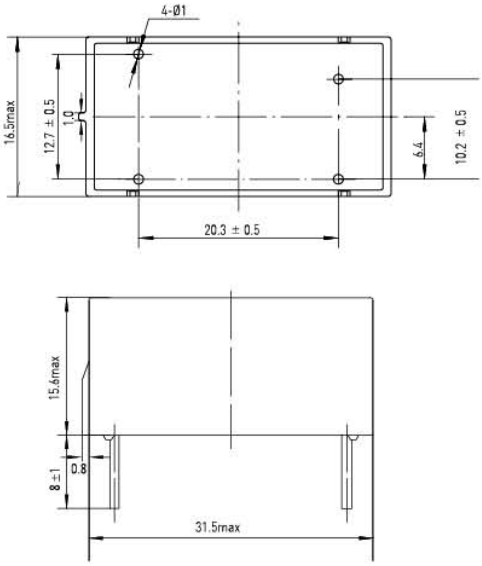
Unit: mm

Outline Dimensions

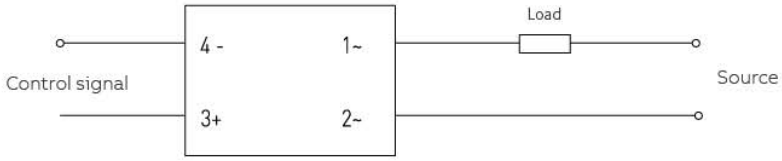
Standard type



T type

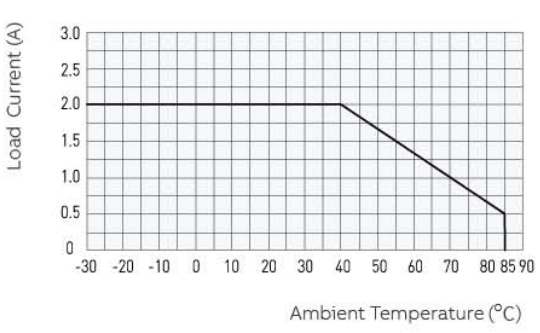


Wiring Diagram



CHARACTERISTIC CURVES

Max. Load Current
vs. Ambient Temperature



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