

## Solid State Relay (Single Phase AC Output)

KSA

### Features

- TTL compatible drive
- Load current: 0.1A-2A @24-280VAC
- Control voltage: 5VDC, 12VDC, 24VDC
- Dielectric strength:  $\geq 2500\text{VACrms}$
- PCB mounted
- RoHS compliant



## 1. DESCRIPTION

KSA series is printed board mounted AC output solid state relay. Small volume with high surge current ability. The control input voltage is 5VDC, 12VDC and 24VDC. Opto-isolation between input and output, output is AC output random-on and AC output zero crossing.

## 2. APPLICATION

Suitable for control electromagnetic valve, electric machine and filament lamp etc.

## 3. IMPORTANT NOTICE

- 1) Soldering must be finished within 10 seconds at  $250^{\circ}\text{C}$ , and finished within 5 seconds at  $350^{\circ}\text{C}$ .
- 2) Terminal polarity to ensure proper control, or may damage the product.
- 3) When the ambient temperature is over  $25^{\circ}\text{C}$ , load current performance will decline.

## 4. TECHNICAL SPECIFICATION

### 1) Input Circuit

Control Voltage Range	5VDC	4-6VDC
	12VDC	9.6-14.4VDC
	24VDC	19.2-28.8VDC
Minimum Turn-on Voltage	5VDC	4VDC
	12VDC	9.6VDC
	24VDC	19.2VDC
Minimum Turn-off Voltage		1.0VDC
Maximum Input Current		20mA

## 2) Output Circuit

Load Voltage Range		24-280VAC
Transient Overvoltage		600Vpk
Load Current Range		0.1-2A
Maximum Surge Current [@10ms]		25A
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	10ms
Maximum Turn-off Time		10ms
Maximum Off-state Leakage Current [@Rated Voltage]		1.5mA
Maximum On-state Voltage Drop [@Rated Voltage]		1.5Vrms
Minimum Off-state dv/dt [@Maximum Rated Voltage]		200V/μs

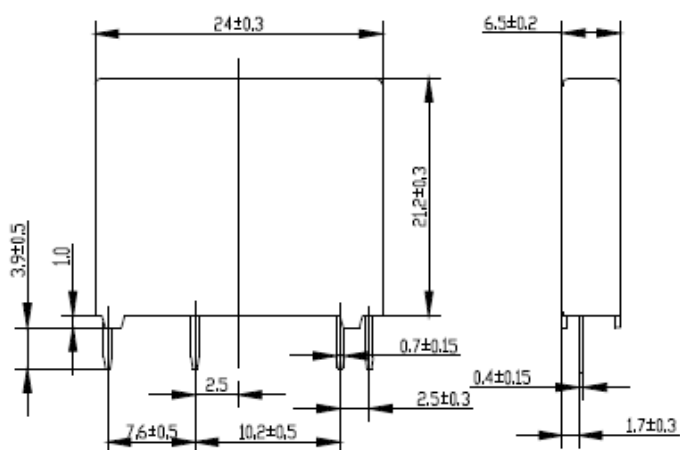
## 3) General Information

Dielectric Strength, Input/Output [50/60Hz]	≥2500VACrms
Insulation Resistance	1000MΩ [@500VDC]
Ambient Operating Temperature Range	-30℃ ~ +80℃
Ambient Storage Temperature Range	-30℃ ~ +100℃
Weight [Typical]	6g

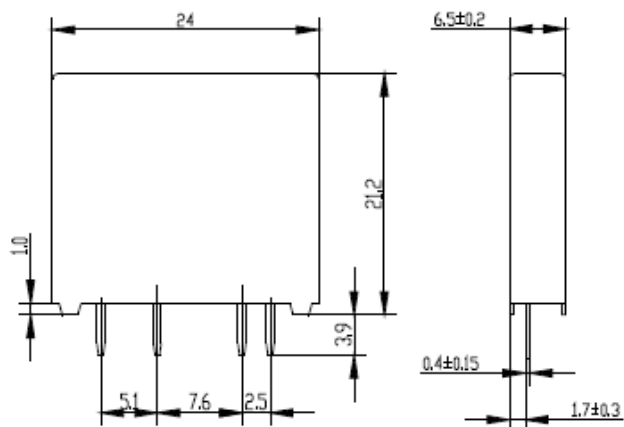
## 5. ORDERING INFORMATION

<u>KSA</u> ①	<u>240</u> ②	<u>D</u> ③	<u>2</u> ④	<u>R</u> ⑤	<u>-24</u> ⑥	<u>I</u> ⑦
① Relay Model	KSA					
② Load Voltage	240: 240VAC					
③ Control	D: DC control					
④ Load Current	2: 2Amp					
⑤ Switching Mode	None: Zero crossing R: Random-on					
⑥ Control Voltage	5: 5VDC 12: 12VDC 24: 24VDC					
⑦ Footprint	None: Standard footprint T: T type footprint					

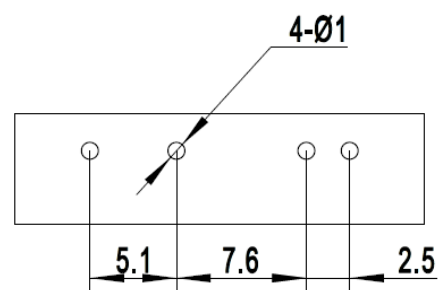
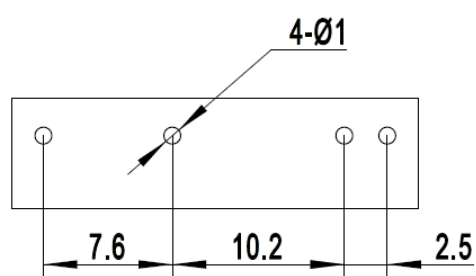
## 6. INSTALLATION



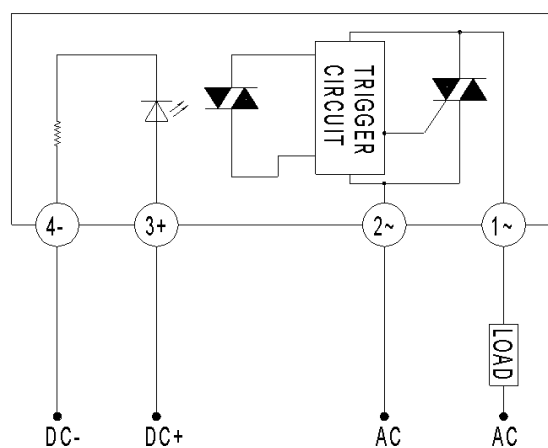
Standard Footprint



T Type Footprint



## 7. WIRING DIAGRAM



## 8. THERMAL CURVE

