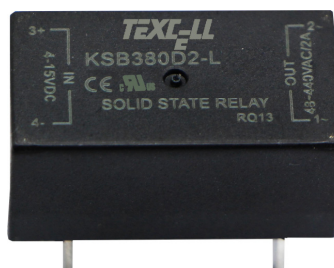


## Solid State Relay (Single Phase AC Output)

KSB

### Features

- Zero crossing or random-on switching
- Ratings from 2A, 3A@24-440VAC
- Control voltage: 4-15VDC or 15-32VDC
- Opto-isolation:  $\geq 4000\text{VACrms}$
- High EMC capability
- Internal RC absorption circuit
- RoHS compliant



## 1. DESCRIPTION

KSB series is printed board mounted solid state relay. Load current is 2A, 3A including zero cross and random-on switching control. The control voltage is 4-15VDC and 15-32VDC, isolation voltage is 4000VACrms. High EMC and high inrush current capability.

## 2. APPLICATION

Suitable for important industrial applications such as pumps, tankers motor, valve control and motor control.

## 3. IMPORTANT NOTICE

- 1) Soldering must be finished within 10 seconds at 260℃, and finished within 5 seconds at 350℃.
- 2) Terminal polarity to ensure proper control, or may damage the product.
- 3) When the ambient temperature is over 40℃, load current performance will decline.

## 4. TECHNICAL SPECIFICATION

### 1) Input Circuit

Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
Control Voltage Range	L	4-15VDC
	H	15-32VDC
Minimum Turn-on Voltage	L	4VDC
	H	15VDC
Minimum Turn-off Voltage		1VDC
Maximum Input Current	L	32mA@15VDC
	H	18mA@32VDC

## 2) Output Circuit

Load Voltage Range	240VAC	24-280VAC
	380VAC	24-440VAC
Load Current Range	2A	0.1-2A
	3A	0.1-3A
Maximum Surge Current [@10ms]	2A	120A
	3A	180A
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	10ms
Maximum Turn-off Time		10ms
Maximum Off-state Leakage Current [@Rated Voltage]		5mA
Maximum On-state Voltage Drop [@Rated Current]		1.5Vrms
Minimum Off-state dv/dt [@Maximum Rated Voltage]		200V/μs

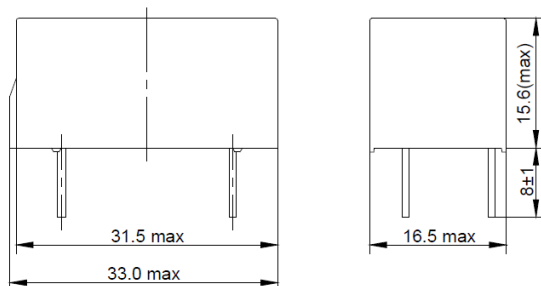
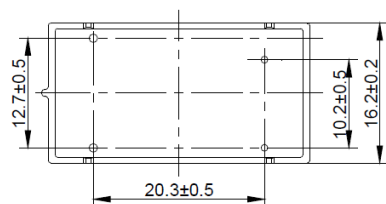
## 3) General Information

Dielectric Strength, Input/Output [50/60Hz]	≥4000VACrms
Ambient Operating Temperature Range	-30 °C ~ +80 °C
Ambient Storage Temperature Range	-30 °C ~ +100 °C
Weight [Typical]	15g

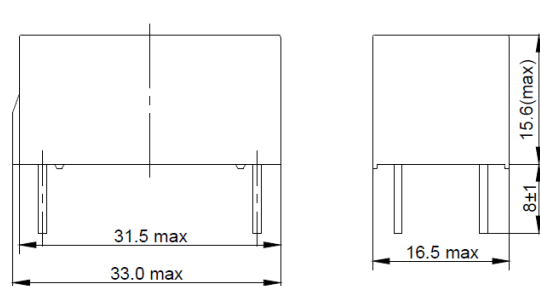
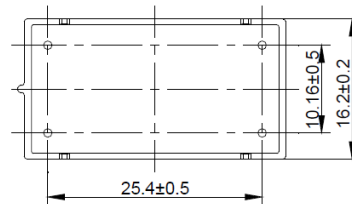
## 5. ORDERING INFORMATION

<u>KSB</u> ①	<u>240</u> ②	<u>D</u> ③	<u>3</u> ④	<u>R</u> ⑤	<u>-L</u> ⑥	<u>-T</u> ⑦
① Relay Model	KSB					
② Load Voltage	240: 240VAC 380: 380VAC					
③ Control	D: DC control					
④ Load Current	2: 2Amp 3: 3Amp					
⑤ Switching Mode	None: Zero crossing R: Random-on					
⑥ Control Voltage	L: 4-15VDC H: 15-32VDC					
⑦ Footprint	None: Standard footprint T: T type footprint					

## 6. INSTALLATION

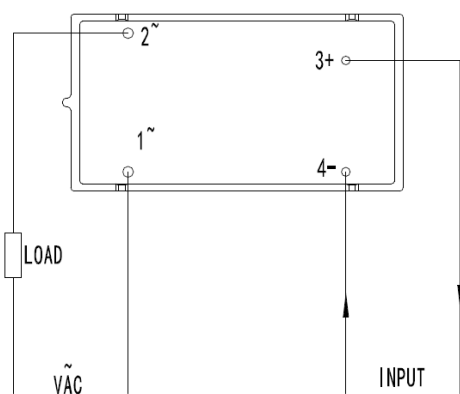


T Type Footprint

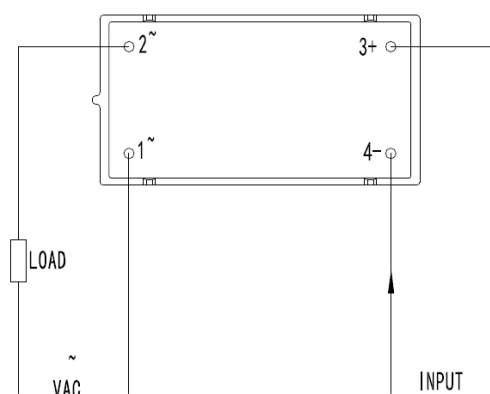


Footprint

## 7. WIRING DIAGRAM



T Type Footprint



Standard Footprint

## 8. THERMAL CURVE

