

Product Description

- ◆ Zero crossing or Random-on switching
- ◆ TRIAC Output
- ◆ Control Voltage: 4-15VDC or 15-32VDC
- ◆ Load Current: 2A or 3A @24-440VAC
- ◆ Dielectric Strength: 4000Vrms
- ◆ Internal RC Absorption Circuit (Optional)
- ◆ PCB Mounted
- ◆ RoHS Compliant



Ordering Information

| | | | | | | | | |
|---------------------------|--|------------|------------------------------------|---|--|------------------------------------|--|--------------------|
| KSB | 240 | D | 3 | R | -L | N | T | (XXX) |
| KSB Series ⁽¹⁾ | Load Voltage 240: 240VAC 380: 380VAC | DC Control | Load Current 2: 2Amp 3: 3Amp | Switching Mode Blank: Zero Crossing R: Random-on | Control Voltage L: 4-15VDC Input H: 15-32VDC Input | Blank: with RC N: without RC | Blank: Standard T: T Type Footprint | Customized Code |

(1) Part numbers available are listed in the table below.

| Control Voltage | 2A | | 3A | |
|-----------------|----------------|-----------------|----------------|-----------------|
| -L | KSB240D2-L(N) | KSB240D2R-L(N) | KSB240D3-L(N) | KSB240D3R-L(N) |
| | KSB240D2-L(N)T | KSB240D2R-L(N)T | KSB240D3-L(N)T | KSB240D3R-L(N)T |
| | KSB380D2-L(N) | KSB380D2R-L(N) | KSB380D3-L(N) | KSB380D3R-L(N) |
| | KSB380D2-L(N)T | KSB380D2R-L(N)T | KSB380D3-L(N)T | KSB380D3R-L(N)T |
| -H | KSB240D2-H(N) | KSB240D2R-H(N) | KSB240D3-H(N) | KSB240D3R-H(N) |
| | KSB240D2-H(N)T | KSB240D2R-H(N)T | KSB240D3-H(N)T | KSB240D3R-H(N)T |
| | KSB380D2-H(N) | KSB380D2R-H(N) | KSB380D3-H(N) | KSB380D3R-H(N) |
| | KSB380D2-H(N)T | KSB380D2R-H(N)T | KSB380D3-H(N)T | KSB380D3R-H(N)T |

General Specifications

| Input Specifications (Ta=25°C) | | |
|--------------------------------|---|-------------|
| Control Voltage Range | L | 4-15VDC |
| | H | 15-32VDC |
| Must Turn-on Voltage | L | 4VDC |
| | H | 15VDC |
| Must Turn-off Voltage | | 1VDC |
| Maximum Input Current | L | 40mA @15VDC |
| | H | 25mA @32VDC |

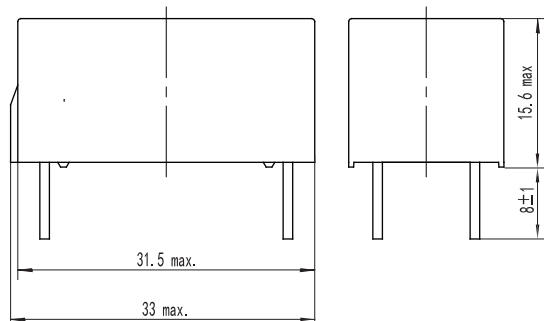
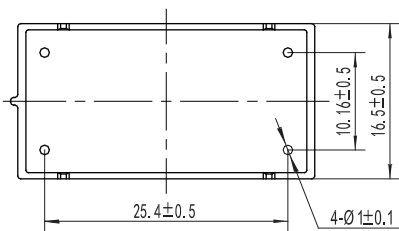
General Specifications

| Output Specifications (Ta=25°C) | | |
|--|---|---------------------|
| Load Voltage Range | 240VAC | 24-280VAC |
| | 380VAC | 24-440VAC |
| Maximum Transient Overvoltage | 240VAC | 600Vpk |
| | 380VAC | 800Vpk |
| Maximum Off-State Leakage Current @Rated Load Voltage | without RC | 0.1mA |
| | with RC | 5mA |
| Minimum Off-State dv/dt@Maximum Rated Voltage | 200V/μs | |
| Load Current Range | 2A | 0.1-2A |
| | 3A | 0.1-3A |
| Maximum Surge Current (50Hz) | 2A | 35Apk |
| | 3A | 80Apk |
| Maximum I ² t for Fusing (10ms) | 2A | 6.1A ² s |
| | 3A | 32A ² s |
| General Specifications (Ta=25°C) | | |
| Maximum On-State Voltage Drop@Rated Current | 1.5Vrms | |
| Maximum Turn-on Time | Zero Crossing : 1/2 cycle+1ms, Random-on: 1ms | |
| Maximum Turn-off Time | 1/2cycle+1ms | |
| Operational Frequency Range | 47-63Hz | |
| Minimum Power Factor (@ Maximum load) | 0.5 | |
| Dielectric Strength (50/60Hz) | 4000Vrms | |
| Minimum Insulation Resistance (@500VDC) | 1000MΩ | |
| Ambient Temperature Range | -30°C ~ +80 °C | |
| Storage Temperature Range | -30°C ~ +100 °C | |
| Weight (Typical) | 15g | |

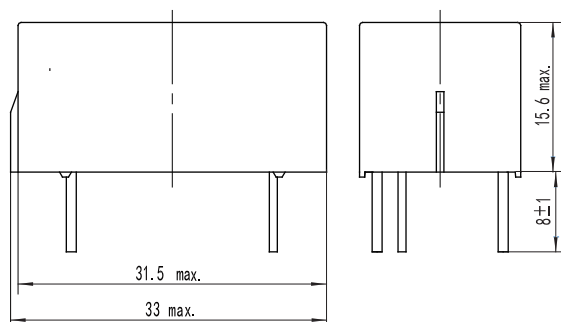
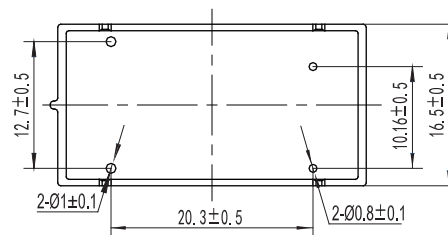
Applications

Suitable for pumps, valve control, motor control, and ect.

Outline Dimensions

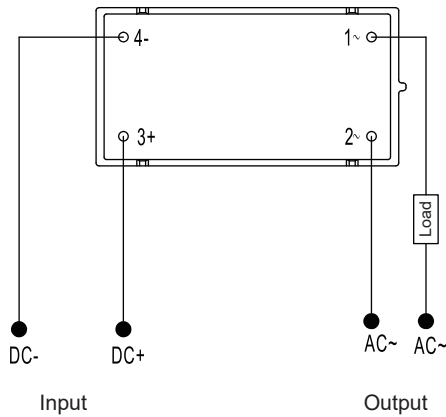


Standard Footprint

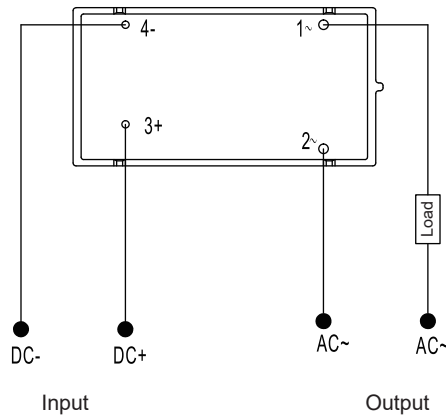


T Type Footprint

Wiring Diagram

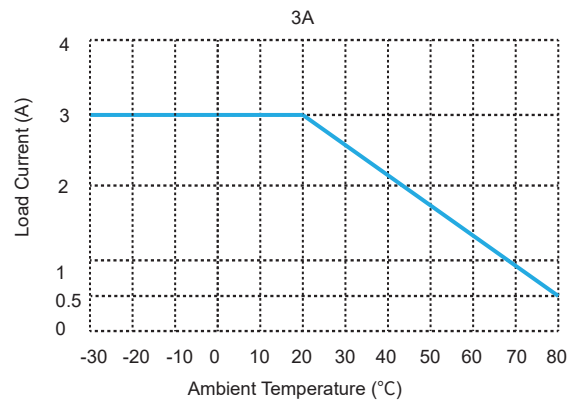
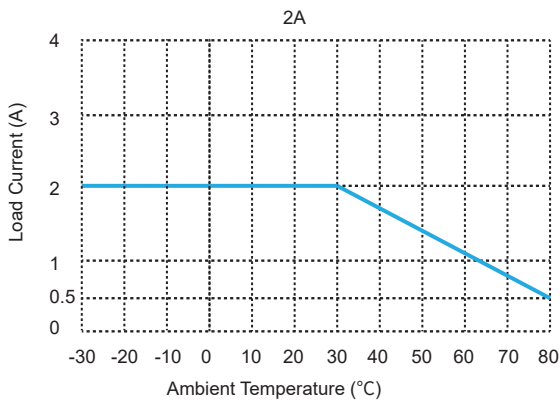


Standard Footprint



T Type Footprint

Thermal Derating Curve



General Notes

1. Soldering must be finished within 10 seconds at 260°C, or finished within 5 seconds at 350°C. Otherwise it may cause damage to the relay.
2. Terminal polarity must be observed. Otherwise it may cause damage to the relay.
3. When ambient temperature is above 25°C, the maximum load current decreases. See thermal derating curve.

Warnings

1. The product's side panels may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. Verify all connections and replace all covers before turning on power.

Certification Standards

| Certification | Test standard |
|---------------|---------------|
| UL | UL508 |