

Product Description

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



Note: Products without RC do not have UL certification.

Product Selection

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

Available Part Numbers

Control Mode	Part Numbers			
	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

Technical 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

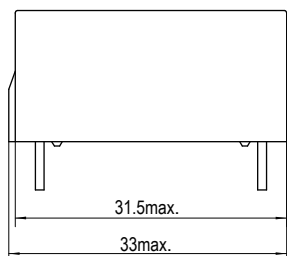
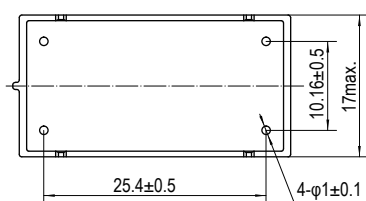
Output Specifications (Ta=25°C)		
Load Voltage Range	240VAC	24-280VAC
	380VAC	24-440VAC
Maximum Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
Maximum Off-State Leakage Current (@Rated Load Voltage)	without RC	0.1mA
	with RC	5mA
Minimum Off-State (dv/dt @Maximum Rated Voltage)	200V/μs	
Load Current Range	2A	0.1-2A
	3A	0.1-3A
Maximum Surge Current (@10ms)	2A	35A _{pk}
	3A	80A _{pk}
Maximum I ² t for Fusing (@10ms)	2A	6.1A ² s
	3A	32A ² s
Maximum On-State Voltage Drop (@Rated Current)	1.5V _{rms}	
Maximum Turn-on Time	Zero Crossing	1/2cycle+1ms
	Random-on	1ms
Maximum Turn-off Time	1/2cycle+1ms	
Operational Frequency Range	47~63Hz	
Minimum Power Factor	0.5	

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000V _{rms}
Minimum Insulation Resistance (@500VDC)	1000mΩ	
Ambient Temperature Range	-30°C ~ +80°C	
Storage Temperature Range	-30°C ~ +100°C	
Weight (Typical)	15g	

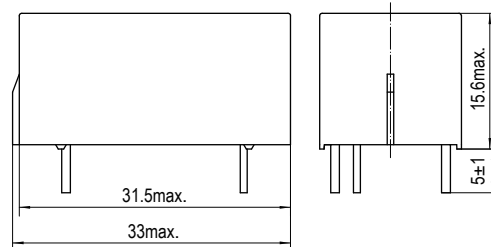
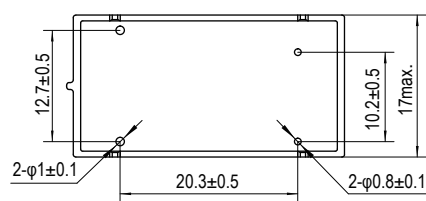
Applications

Suitable for small power pumps, valves or motor control, etc.

Outline Dimensions

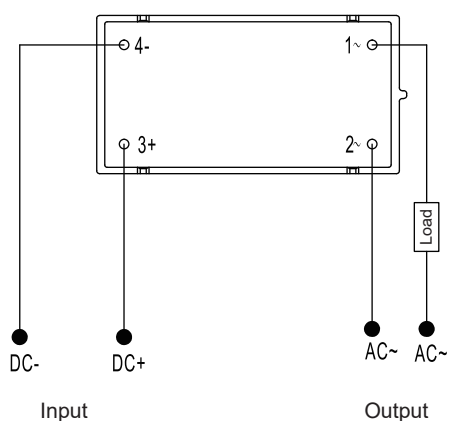


Standard Footprint

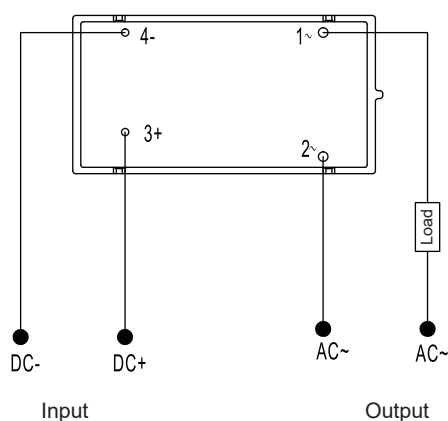


T Type Footprint

Wiring Diagram

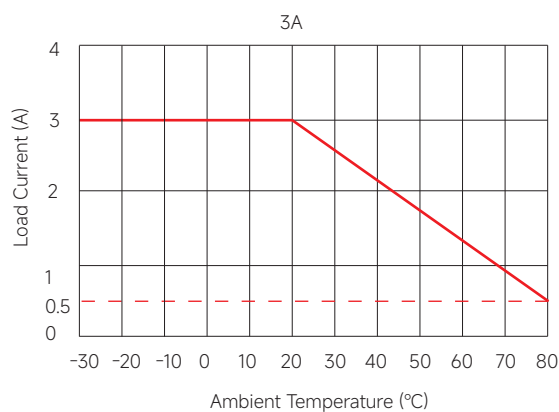
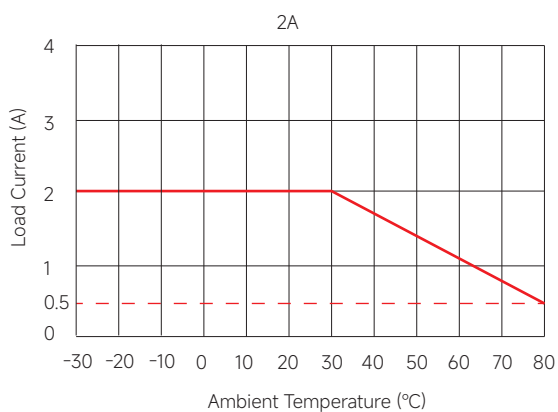


Standard Footprint



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