Solid State Relay (Single Phase AC Output)	KSA

features

- TTL compatible drive
- TRIAC output
- Control voltage: 5VDC, 12VDC, 24VDC
- Control current: 10mA
- Load current: 2A
- Dielectric strength: 3000Vrms
- PCB mounted

1. TECHNICAL SPECIFICATIONS

1) Input Specifications (Ta=25℃)

Control Voltage Range	5VDC	4-6VDC
	12VDC	9.6-14.4VDC
	24VDC	19.2-28.8VDC
Control Current Range		10-25mA
Must Turn-on Voltage	5VDC	4VDC
	12VDC	9.6VDC
	24VDC	19.2VDC
Must Turn-on current	I	10mA
Must Turn-off Current		1mA
Must Turn-off Voltage	5, 12, 24VDC	1VDC
Maximum Input Current	5, 12, 24VDC	25mA

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2) Output Specifications (Ta=25℃)

Load Voltage Range		24-280VAC
Maximum Transient Overvoltage		600Vpk
Maximum Off-state Leakage Current [@Rated Load Voltage]		1.5mA
Maximum Off-state [dv/dt@Maximum Rated Voltage]		200V/μs
Load Current Range		0.1-2A
Maximum Surge Current [@10ms]		35Apk
Maximum I^2T for Fusing [@10ms]		$6.1A^2s$
Maximum On-State Voltage Drop [@Rated Current]		1.5Vrms
Maximum Turn-on Time	Zero Crossing	1/2cycle + 1ms
	Random-on	1ms
Maximum Turn-off Time		1/2cycle + 1ms
Operation Frequency Range		47-63Hz
Minimum Power Factor		0.5

3) General Specifications (Ta=25℃)

Dielectric Strength [50/60Hz]	Input/Output	3000Vrms
Minimum Insulation Resistance [@500VDC]		1000MΩ
Ambient Temperature Range		-30℃ ~ +80℃
Storage Temperature Range		-30℃ ~ +100℃
Weight [Typical]		6g

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2. ORDERING INFORMATION

KSA ①	240 ②	D ③	2 ④	R ⑤	-24 ⑥	T ⑦	(XXX) ⑧

① Relay Model	KSA
② Load Voltage	240: 240VAC
③ Control	D: DC control
④ Load Current	2: 2Amp
⑤ Switching Mode	Nil: Zero crossing R: Random-on
⑥ Control Mode	5: 5VDC 12: 12VDC 24: 24VDC I: 10mA
⑦ Pin Layout	Nil: Standard footprint T: T type footprint
⑧ Customized Code	(XXX)

3. AVAILABLE PART NUMBER

5VDC	KSA240D2-5	KSA240D2-5T
	KSA240D2R-5	KSA240D2R-5T
12VDC	KSA240D2-12	KSA240D2-12T
	KSA240D2R-12	KSA240D2R-12T
24VDC	KSA240D2-24	KSA240D2-24T
	KSA240D2R-24	KSA240D2R-24T
10mA	KSA240D2-I	KSA240D2-IT
	KSA240D2R-I	KSA240D2R-IT

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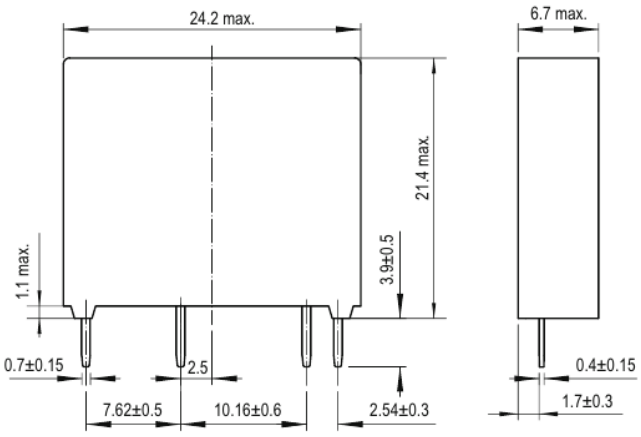
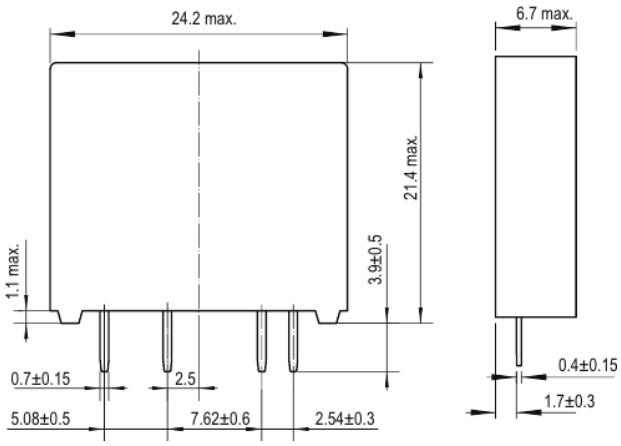
4. OUTLINE DIMENSIONS

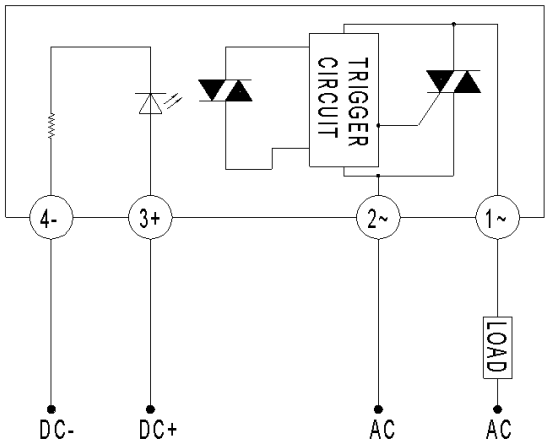


Standard Footprint

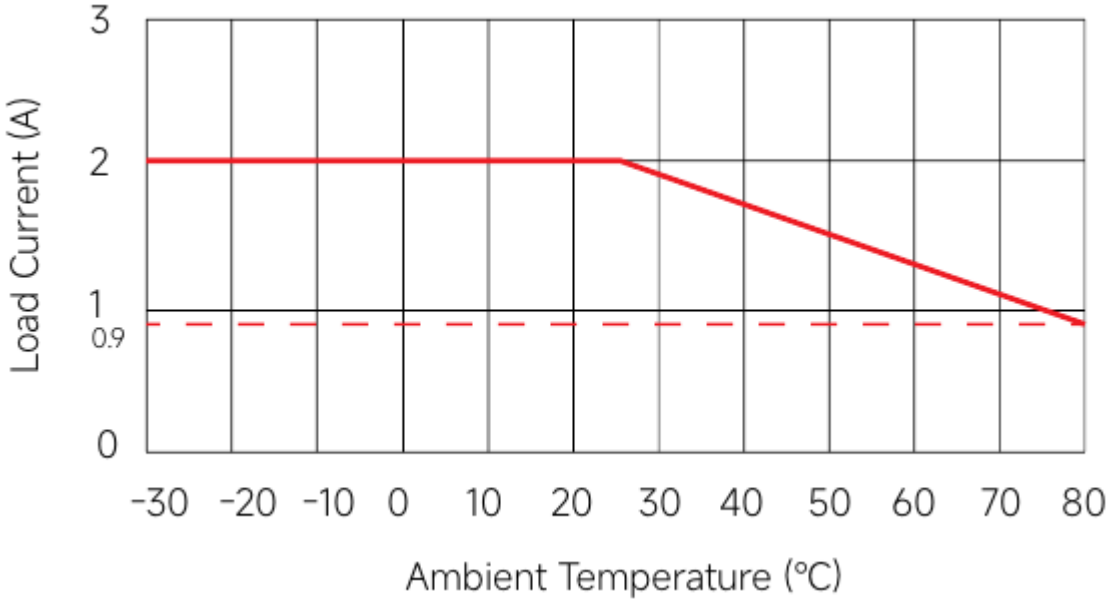


T Type Footprint

5. WIRING DIAGRAM



6. THERMAL DERATING CURVE



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7. GENERAL NOTES

1) Soldering must be finished within 10 seconds at 260℃, or finished within 5 seconds at 350℃.
   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℃, the maximum load current decreases. See thermal derating curve.

8. 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.

9. APPLICATION

Suitable for small power valves or pump control for HVAC applications.

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