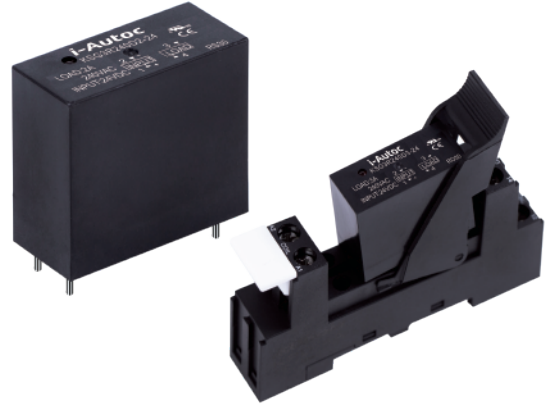


**Product Description**

KSG3R series is a set of normally open small AC solid state relays, PCB mounting, controlled voltages in 5VDC, 12VDC and 24VDC specifications, load current 2A and 3A, load voltage 240VAC and 380VAC, dielectric withstand voltage 4000Vrms. Applicable to various electromagnetic devices and intelligent instruments in the field of industrial automation.

- ◆ TRIAC Output
- ◆ Control Voltage: 5VDC, 12VDC, 24VDC
- ◆ Load Current: 2A, 3A@24-440VAC
- ◆ Dielectric Strength: 4000Vrms
- ◆ Internal RC Absorption Circuit
- ◆ RoHS Compliant
- ◆ Optional socket, rail mounting



**Ordering Information**

<b>KSG3R</b>	<b>380</b>	<b>D</b>	<b>3</b>	<b>R</b>	<b>-5</b>	<b>D</b>	<b>(XXX)</b>
KSG3R Series <sup>(1)</sup>	Load Voltage 240: 240VAC 380: 380VAC	D: DC Control	Load Current 2: 2Amp 3: 3Amp	Switching Mode Blank: Zero Crossing R: Random-on	5: 5VDC 12: 12VDC 24: 24VDC	Blank: without socket D: with socket	Customized Code

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

	2A		3A	
5VDC	KSG3R240D2-5(D)	KSG3R240D2R-5(D)	KSG3R240D3-5(D)	KSG3R240D3R-5(D)
	KSG3R380D2-5(D)	KSG3R380D2R-5(D)	KSG3R380D3-5(D)	KSG3R380D3R-5(D)
12VDC	KSG3R240D2-12(D)	KSG3R240D2R-12(D)	KSG3R240D3-12(D)	KSG3R240D3R-12(D)
	KSG3R380D2-12(D)	KSG3R380D2R-12(D)	KSG3R380D3-12(D)	KSG3R380D3R-12(D)
24VDC	KSG3R240D2-24(D)	KSG3R240D2R-24(D)	KSG3R240D3-24(D)	KSG3R240D3R-24(D)
	KSG3R380D2-24(D)	KSG3R380D2R-24(D)	KSG3R380D3-24(D)	KSG3R380D3R-24(D)

**General Specifications**

Input Specifications (Ta=25°C)		
Control Voltage Range	-5	4-6VDC
	-12	9.6-14.4VDC
	-24	19.2-28.8VDC
Must Turn-on Voltage	-5	4VDC
	-12	9.6VDC
	-24	19.2VDC
Must Turn-off Voltage	1VDC	
Maximum Input Current	-5	25mA (@6VDC)
	-12	25mA (@14.4VDC)
	-24	25mA (@28.8VDC)

Output Specifications (Ta=25°C)		
Load Voltage Range	240VAC	24-280VAC
	380VAC	24-440VAC
Maximum Transient Overvoltage	240VAC	600Vpk
	380VAC	800Vpk
Load Current Range	2A	0.1 - 2A
	3A	0.1 - 3A

**General Specifications**

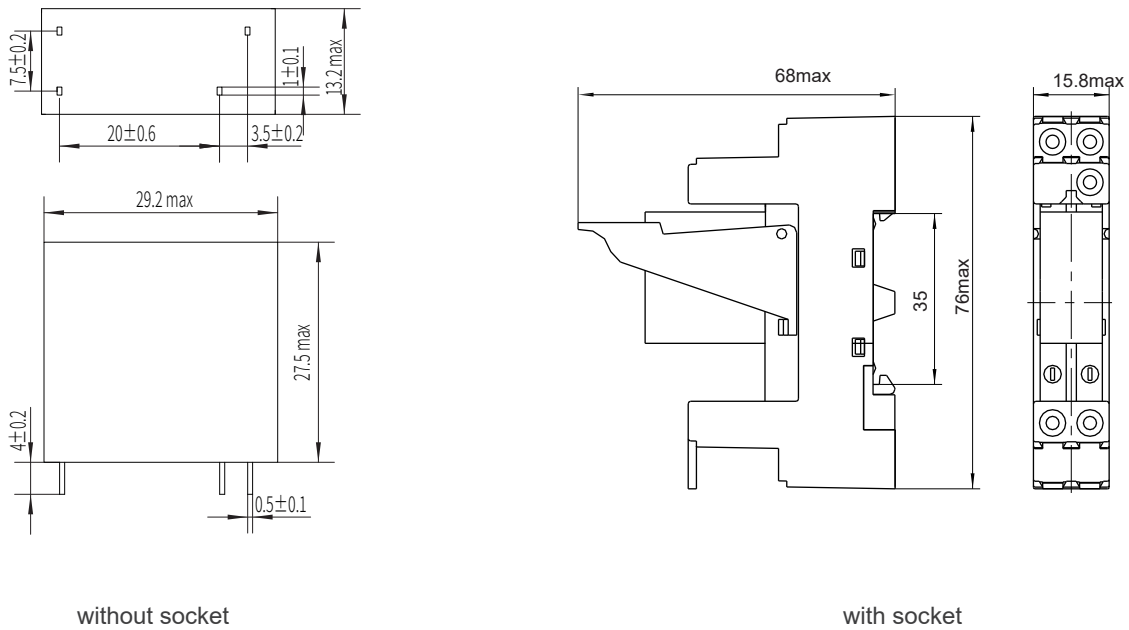
Maximum 1 Cycle Surge Current (10ms)	2A	80Apk
	3A	120Apk
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	1/2cycle+1ms
Maximum Turn-off Time	1/2cycle+1ms	
Maximum Off-State Leakage Current@Rated Load Voltage	5mA	
Maximum On-State Voltage Drop@Rated Current	1.5Vrms	
Minimum Off-State dv/dt@Maximum Rated Voltage	200V/μs	
Operational Frequency Range	47-63Hz	
Minimum Power Factor (@ Maximum load)	0.5	

<b>General Specifications (Ta=25°C)</b>		
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)	without socket	18g
	with socket	55g

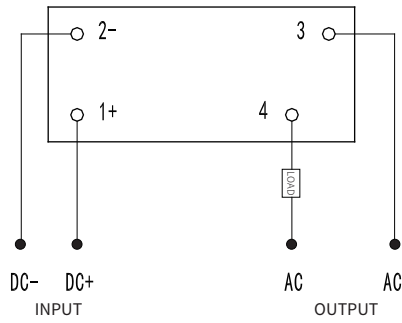
**Applications**

Suitable for electromagnetic devices, intelligent instrument, and etc.

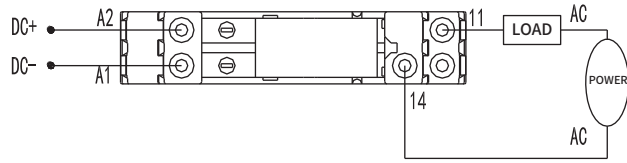
**Outline Outline Dimensions**



Wiring Diagram

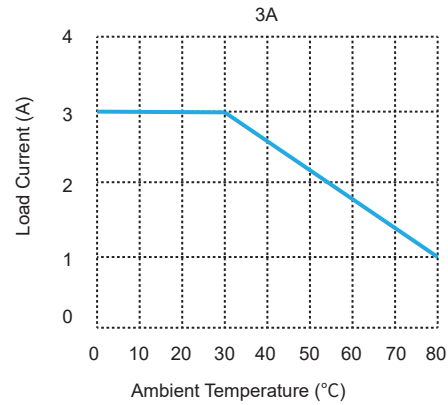
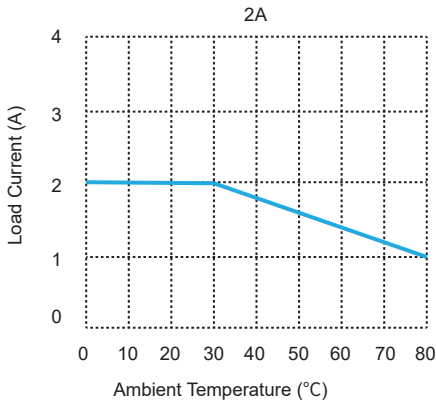


Without Socket (Bottom View)



With Socket (Top View)

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 C22.2 No. 14-13