



File No.: E133481



File No.: R2024431

INPUT (TA = 25• C)



File No.: CH0032705-2002A



Features

- DC input-AC output for 2A load at 25°C
- •600 Volt blocking voltage
- · Photo isolation
- · Built-in snubber
- · Zero cross or random turn-on
- · Printed circuit board mount

Control voltage range	05D	4 to 6VDC
	12D	9.6 to 14.4VDC
	24D	19.2 to 28.8VDC

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Must operate voltage	05D	4VDC	max.
	12D	9.6VDC	max.
	24D	19.2VDC	max.
Must release voltage		1.0VDC	min.
Max. input current			10mA

OUTPUT

Load voltage range (@47 to 63Hz)		75 to 264VAC
Load current range		0.1 to 2A
Max. surge current (10ms)		25Apk
Max. leakage current		1.5mA
Max. on-state voltage drop		1.5VAC
Max. turn-on time	Zero cross turn-on	10ms
	Random turn-on	1ms
Max. turn-off time		10ms
Transient overvoltage		600Vpk max.
Min. off-state dv/dt		100V/µs min.
Zero-crossover voltage		±15V max.
Min. power factor		0.5

GENERAL

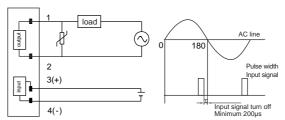
Dielectric strength (input to output)		2000VAC min., 50/60Hz 1min.
Insulation resistance		1000MΩ , min. (at 500VDC)
Max. Capacitance (input to output)		5pF
Vibration durability		10 to 55HZ Double amplitude 1.5mm
Shock durability		1000m/s
Ambient temperature	Operating	-30°C to +80°C
	Storage	-30°C to +100°C
Ambient Humidity		45% to 85%
Unit weight		69

DESCRIPTION

This SPST-NO printed circuit board mount SIP SSR provides AC output switching in a high density package. The JGC-4F's DC input is compatible with 5, 12 and 24V logic systems .All models include an internal snubber. The relays provide 2000Vrms opto-isolation, between input and output. Encapsulation,thermally conductive epoxy.

PRECAUTIONS

1. Terminal arrangement



- 2. Soldering must be completed within 10 seconds at 260 °C or less or within 5 seconds at 350°C or less.
- 3. The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, reduce the load current by half.
- 4. The input circuitry does not incorporate a circuit protecting the SSR from being damaged due to a reversed connection. Make sure that the polarity is correct when connecting the input lines.
- 5. When using the JGC-4F series for an AC load with a peak voltage of more than 450V, connect the load terminals of the relay to an inrush absorber(varistor). The recommended varistor voltage, 440 to 470V.
- 6. The load terminals are internally connected to a snubber circuit that absorb noise. However, if wiring from these terminals is laid with or placed in the same duct as high-voltage or power lines, noise may be induced, causing the SSR to operate irregularly or malfunction.
- 7. When using the JGC-4F series in phase control applications, at a phase control angle close to 180 degrees the relay's input signal turn off at the trailing edge of the AC sine wave must be limited to end 200µs before AC zero cross. This assures that the relay has time to switch off. Shorter times may cause loss of control at the following



ORDERING INFORMATION

JGC-4F /

12

D

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Type

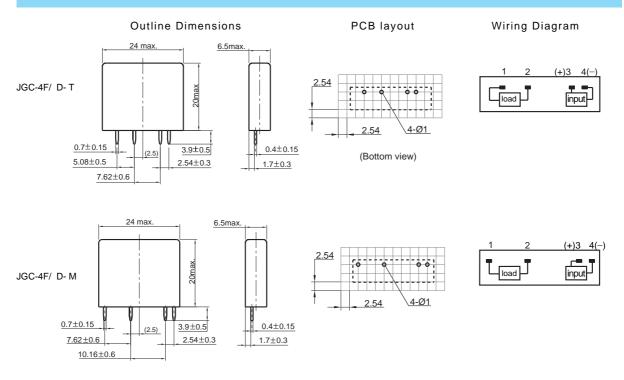
Input voltage 05: 4 to 6VDC 12: 9.6 to 14.4VDC 24: 19.2 to 28.8VDC

Input Form D: DC

Zero Cross Function 0: Zero cross turn-on **1**: Randm turn-on

Termination T: Same as TOSHIBA TSZXX48S, M: Same as OMRON G3MB

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT



CHARACTERISTICS CURVE

