Solid State Relays
G3FM

Refer to *Warranty and Application Considerations* (page 1), *Safety Precautions* (page 4), and *Technical and Safety Information* (page 6).

100-μA-max. Leakage Current, No Bleeder Resistor Required

- 1 mA to 500 mA micro-load switching.
- Switch to both AC and DC with no polarity.
- Switch for a wide range of voltages; 19.2 to 264 VAC, 19.2 to 125 VDC.
- Switch full- and half-wave rectifier AC loads.
- Same sizes and terminal arrangements as OMRON Power Relay MY Series.
- Operating indicator provided.
- Switch MY Series (without bleeder resistor).
- Superior surge absorption with a built-in varistor.
- Optimum SSR to control minute load, valves, and solenoids.

Model Number Structure

■ Model Number Legend

G3FM-□□□□□
  1 2 3 4 5 6

1. **Basic Model Name**
   G3FM: Solid State Relay
2. **Rated Load Power Supply Voltage**
   2:        200 VAC
3. **Rated Load Current**
   R5:   0.5 A
4. **Terminal Type**
   S: Plug-in terminals
5. **Zero Cross Function**
   L: Not equipped with zero cross function
6. **Operation Indicator**
   N: Equipped with operation indicator

Ordering Information

■ List of Models

Isolation	Zero cross function	Indicator	Rated output load	Rated input voltage	Model
Photo-voltage coupler	No	Yes	0.5 A at 24 to 240 VAC 0.5 A at 24 to 110 VDC	5 VDC	G3FM-2R5SLN
				12 VDC	
				24 VDC	

Note: When ordering, specify the rated input voltage.

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■ Accessories (Order Separately)

Connecting Sockets

Refer to page 297 for details.

Item	PYF08A-E	PY08	PY08-02	PY08QN(2)
Connecting	Front connecting	Back connecting		
Mounting method/ Terminal type	Track mounted/ screw terminals	Solder terminals	PCB terminals	Wrapping terminals
Hold-down clip	PYC-A1	PYC-P		

Specifications

■ Ratings (at an Ambient Temperature of 25°C)

Model	Input					Output			
	Rated voltage	Operating voltage	Impedance	Voltage levels		Applicable load			
				Must operate voltage	Must release voltage	Rated load voltage	Load voltage range	Load current	Inrush current
G3FM-2R5SLN	5 VDC	4 to 6 VDC	250 Ω±20%	4 VDC max.	1 VDC min.	24 to 240 VAC	19.2 to 264 VAC	1 to 500 mA	6 A (10 ms)
	12 VDC	9.6 to 14.4 VDC	600 Ω±20%	9.6 VDC max.		24 to 110 VDC	19.2 to 125 VDC		
	24 VDC	19.2 to 28.8 VDC	1.2 kΩ±20%	19.2 VDC					

■ Characteristics

|	
Operate time	5 ms max.
Release time	10 ms max.
Output ON voltage drop	3 V (RMS) max.
Leakage current	0.1 mA max.
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	1,500 VAC, 50/60 Hz for 1 min
Vibration resistance	10 to 55 to 10 Hz, 0.75-mm single amplitude
Shock resistance	1,000 m/s^2
Ambient temperature	Operating: –30°C to 80°C (with no icing or condensation) Storage: –30°C to 100°C (with no icing or condensation)
Ambient humidity	Operating: 45% to 85%
Weight	Approx. 50 g

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Engineering Data

Load Current vs. Ambient Temperature Characteristics
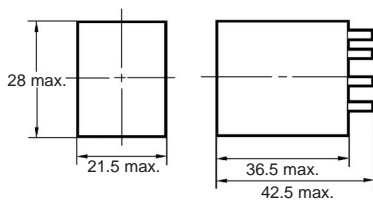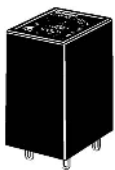
G3FM-2R5SLN

Ambient temperature (°C)
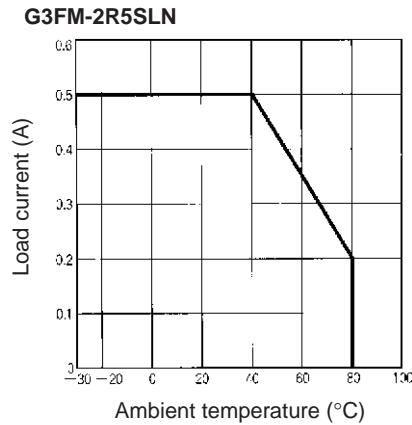
One Cycle Surge Current: Non-repetitive

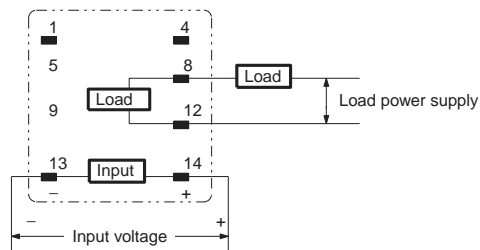Non-repetitive (Keep the inrush current to half the rated value if it occurs repetitively.)

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Energized time (ms)
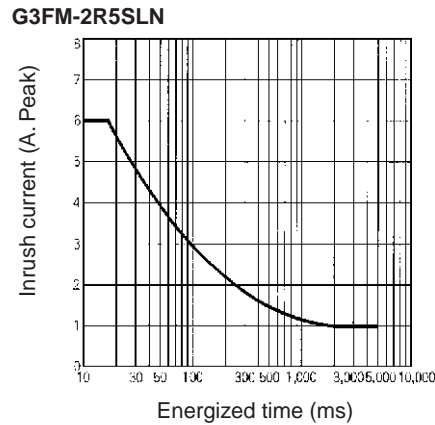
Dimensions

Note: All units are in millimeters unless otherwise indicated.

28 max.
21.5 max.
36.5 max.
42.5 max.

Terminal Arrangement/Internal Connections (Bottom View)

Load
Load
Load power supply
Input
Input voltage

Safety Precautions

■ Precautions for Correct Use

Please observe the following precautions to prevent failure to operate, malfunction, or undesirable effect on product performance.

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.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. K072-E1-03   In the interest of product improvement, specifications are subject to change without notice.

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