

# Solid State Relays

# G3FM

CSM\_G3FM\_DS\_E\_5\_1

## 100- $\mu$ A-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.



Refer to *Safety Precautions for All Solid State Relays*.



**Note:** The socket is optional.

## 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.

## ■ Accessories (Order Separately)

### Connecting Sockets/Hold-Down Clips

	Front-mounting Sockets		Back-mounting Sockets	
Socket	PYF08A(-E)	PYF08M	PY08-02	PY08(QN)
Hold-down Clip	PYC-A1	PYC PYC-P	PYC-P	PYC-P PYC-S

## Specifications

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

Model	Input				Output				
	Rated voltage	Operating voltage	Impedance	Voltage levels		Applicable load			Inrush current
				Must operate voltage	Must release voltage	Rated load voltage	Load voltage range	Load 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 at 40°C	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					

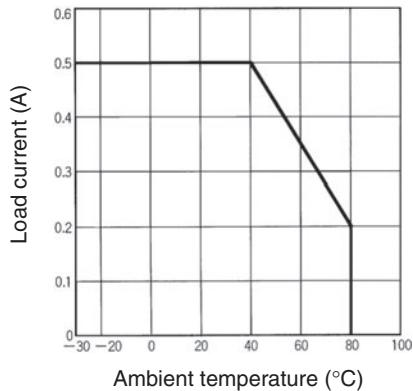
### ■ Characteristics

Operate time	5 ms max.
Release time	10 ms max.
Output ON voltage drop	3 V (RMS) max.
Leakage current	0.1 mA max. (at 200 VAC)
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 <sup>2</sup>
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

# Engineering Data

## Load Current vs. Ambient Temperature Characteristics

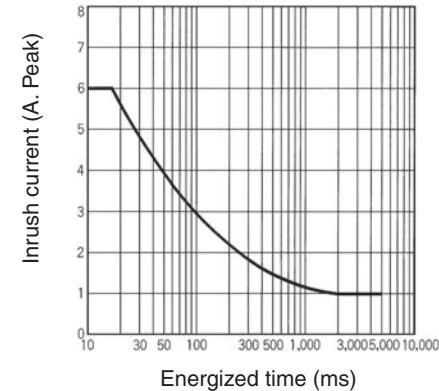
G3FM-2R5SLN



## One Cycle Surge Current: Non-repetitive

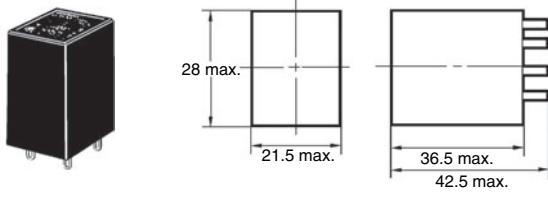
Non-repetitive (Keep the inrush current to half the rated value if it occurs repetitively.)

G3FM-2R5SLN

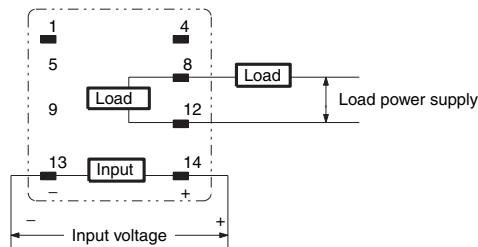


## Dimensions

**Note:** All units are in millimeters unless otherwise indicated.



**Terminal Arrangement/Internal Connections (Bottom View)**



## Safety Precautions

Refer to *Safety Precautions for All Solid State Relays*.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

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