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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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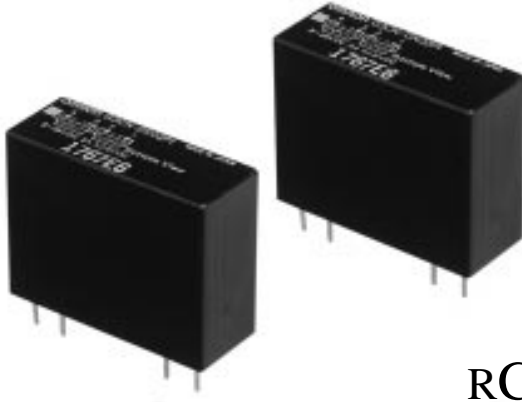


## Solid-state Relay

## G3CN

### Low-cost, PCB-mounting SSR for FA Equipment Requiring High Reliability

- Wide I/O voltage range: 3 to 28 VDC input and 75 to 264 VAC or 3 to 28 VDC input and 3 to 52.8 VDC output.
- Two load currents available: 2 A and 3 A
- Flat and vertical models available for a variety of applications.



RC

### Ordering Information

Isolation	Zero cross function	Indicator	Applicable output load	Rated input voltage	Model
Phototriac	Yes	No	2 A at 75 to 264 VAC	4 to 24 VDC	G3CN-202P-US
			3 A at 75 to 264 VAC		G3CN-202P1-US*
					G3CN-203P-US
					G3CN-203P1-US*
Phototriac	No		2 A at 75 to 264 VAC	5, 12, 24 VDC	G3CN-202PL-US
			3 A at 75 to 264 VAC		G3CN-202PL1-US*
					G3CN-203PL-US
					G3CN-203PL1-US*
Photocoupler	---		2 A at 3 to 52.8 VDC	4 to 24 VDC	G3CN-DX02P-US
			3 A at 3 to 52.8 VDC		G3CN-DX02P1-US*
					G3CN-DX03P-US
					G3CN-DX03P1-US*

\*Vertical models.

### Specifications

#### ■ Ratings Input

Model	Rated voltage	Operating voltage	Impedance	Voltage level	
				Must operate voltage	Must release voltage
G3CN-202P(1) G3CN-203P(1)	4 to 24 VDC	3 to 28 VDC	1.5 kW <sup>+20%</sup> / <sub>-10%</sub>	3 VDC max.	1 VDC min.
G3CN-202PL(1)	5 VDC	4 to 6 VDC	390 W <sup>+20%</sup>	4 VDC max.	
G3CN-203PL(1)	12 VDC	9.6 to 14.4 VDC	900 W <sup>+20%</sup>	9.6 VDC max.	
	24 VDC	19.2 to 28.8 VDC	2 kW <sup>+20%</sup>	19.2 VDC max.	
G3CN-DX02P(1) G3CN-DX03P(1)	4 to 24 VDC	3 to 28 VDC	1.5 kW <sup>+20%</sup> / <sub>-10%</sub>	3 VDC max.	

**Note:** The input impedance is measured at the maximum value of the rated supply voltage. For example, with the model rated at 4 to 24 VDC, the input impedance is measured at 24 VDC.

## Output

Model	Applicable load		
	Rated load voltage	Load current	Inrush current
		Without heat sink	
G3CN-202P(1) G3CN-202PL(1)	75 to 264 VAC	0.1 to 2 A	30 A (60 Hz, 1 cycle)
G3CN-203P(1) G3CN-203PL(1)		0.1 to 3 A	45 A (60 Hz, 1 cycle)
G3CN-DX02P(1)	3 to 52.8 VDC	0.1 to 2 A	12 A (10 ms)
G3CN-DX03P(1)		0.1 to 3 A	18 A (10 ms)

## ■ Characteristics

Item	G3CN-202P(1)/203P(1)	G3CN-202PL(1)/203PL(1)	G3CN-DX02P(1)/03P(1)
Operate time	1/2 of load power source cycle + 1 ms max.	1 ms max.	0.5 ms max.
Release time	1/2 of load power source cycle + 1 ms max.	1/2 of load power source cycle + 1 ms max.	2 ms max.
Output ON voltage drop	1.6 V (RMS) max.		1.5 V max.
Leakage current	5 mA max. (at 100 VAC) 10 mA max. (at 200 VAC)	2.5 mA max. (at 100 VAC) 5 mA max. (at 200 VAC)	5 mA max. (at 50 VDC)
Insulation resistance	100 MW min. (at 500 VDC)		
Dielectric strength	2,500 VAC, 50/60 Hz for 1 min		
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude		
Shock resistance	Malfunction: 1,000 m/s <sup>2</sup> (approx. 100G)		
Ambient temperature	Operating: -30% to 80°C (with no icing) Storage: -30% to 100°C (with no icing)		
Ambient humidity	Operating: 45% to 85%		
Weight	Approx. 25 g		

## ■ Approved Standards

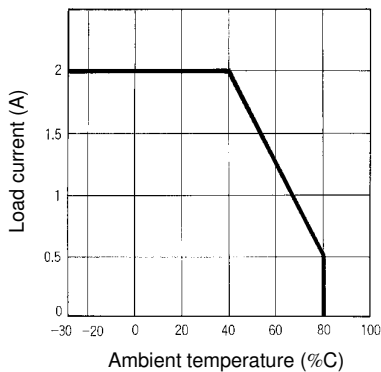
UL114 File No.E64562/CSA C22.2 (No.0, No.14) File No. LR35535

Model	Ratings
G3CN-202P(L)(1)-US	2 A at 240 VAC
G3CN-203P(L)(1)-US	3 A at 240 VAC
G3CN-DX02P(1)-US	2 A at 48 VDC
G3CN-DX03P(1)-US	3 A at 48 VDC

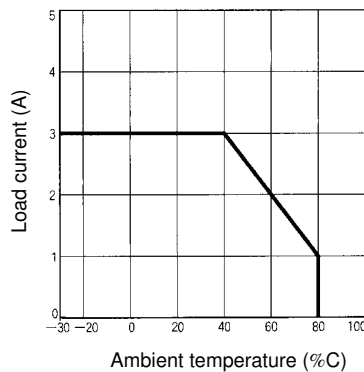
## Engineering Data

## Load Current vs. Ambient Temperature Characteristics

G3CN-202P(1)/-202PL(1)/-DX02P(1)



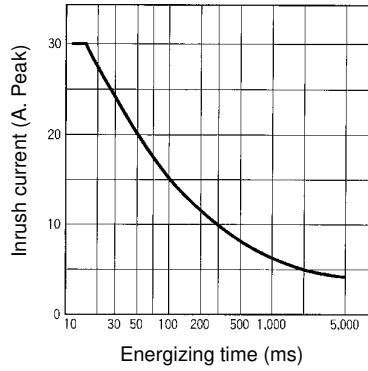
G3CN-203P(1)/-203PL(1)/-DX03P(1)



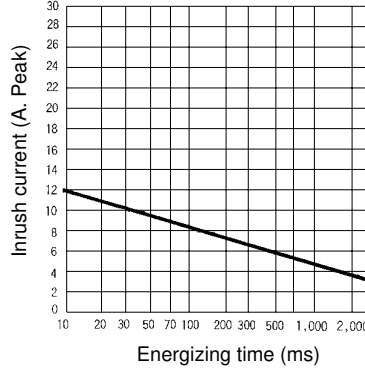
**Inrush Current Resistivity  
2-A Load**

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

**G3CN-202P(1)/-202PL(1)**

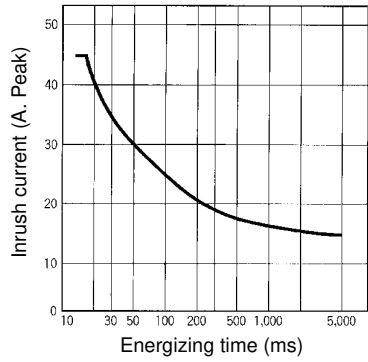


**G3CN-DX02P(1)**

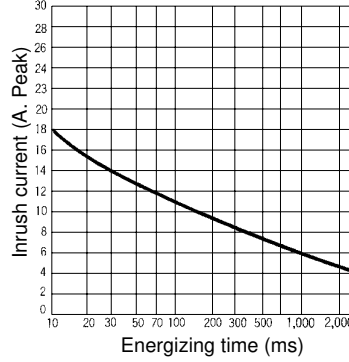


**3-A Load**

**G3CN-203P(1)/-203PL(1)**



**G3CN-DX03P(1)**

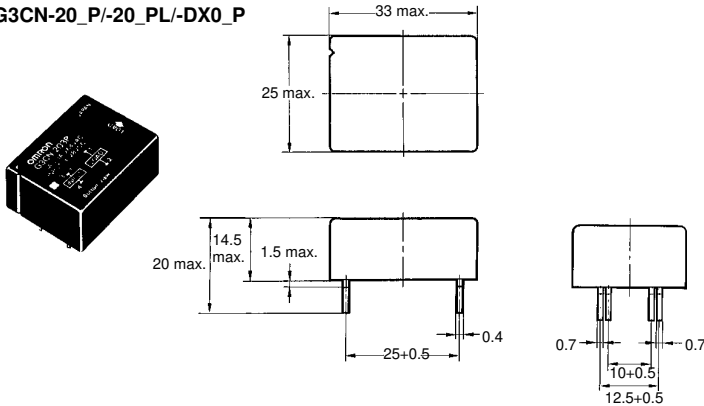


# Dimensions

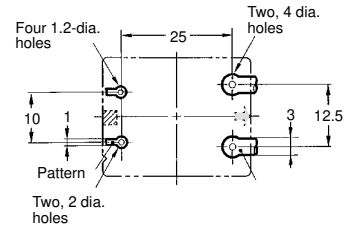
**Note:** All units are in millimeters unless otherwise indicated.

## Flat Model

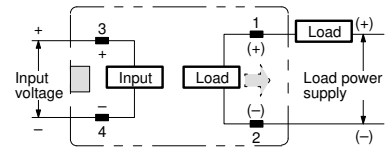
G3CN-20\_P/-20\_PL/-DX0\_P



### Terminal Arrangement/ Mounting Holes (Bottom View)



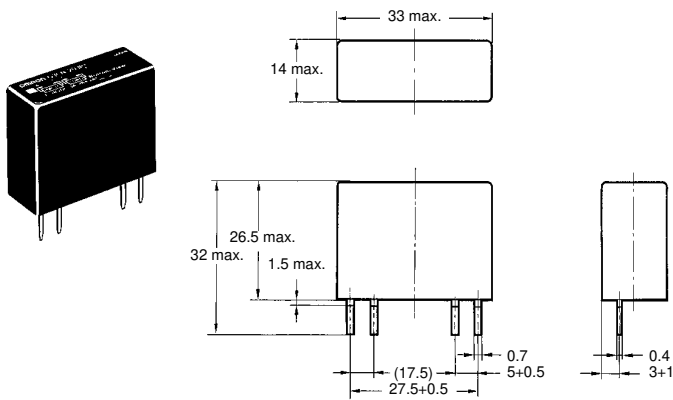
### Terminal Arrangement/ Internal Connections (Bottom View)



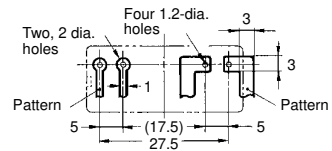
**Note:** Values in parentheses apply to the DC-load versions.

## Vertical Model

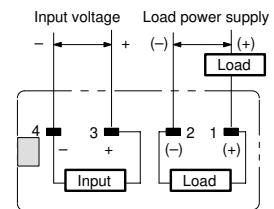
G3CN-20\_P1/-20\_PL1/-DX0\_P1



### Terminal Arrangement/ Mounting Holes (Bottom View)



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



**Note:** Values in parentheses apply to the DC-load versions.

# Precautions

Refer to pages 5 to 13 for general precautions.

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