



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

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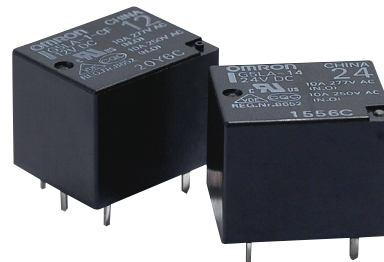
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PCB Relay G5LA

A Cubic, Single-pole 10A Power Relay

- Economical cube relay with universal terminal footprint
- Conforms to VDE0435, CQC
- UL recognized/ CSA certified.
- High switching power: 10A @ 250VAC
- Withstands impulse of up to 4,500V
- Coil power consumption: 360mW
- UL Class F coil insulation type also available
- Tracking resistance: CTI>250
- RoHS Compliant



Ordering Information

Type	Contact form	Enclosure ratings	Model
Standard	SPST-NO (Class A)	Flux protection	G5LA-1A
		Sealed	G5LA-1A4
	SPST-NO (Class F)	Flux protection	G5LA-1A-CF
		Sealed	G5LA-1A4-CF
	SPDT (Class A)	Flux protection	G5LA-1
		Sealed	G5LA-14
	SPDT (Class F)	Flux protection	G5LA-1-CF
		Sealed	G5LA-14-CF
High-capacity	SPDT (Class A)	Flux protection	G5LA-1-E
		Sealed	G5LA-14-E
	SPDT (Class F)	Flux protection	G5LA-1-E-CF
		Sealed	G5LA-14-E-CF

Note: When ordering, add the rated coil voltage to the model number.
Example: G5LA-1 DC12

Rated coil voltage

Model Number Legend

G5LA- - - DC

1 2 3 4 5 6

1. Number of Poles

1: 1 pole

2. Contact Form

None: SPDT
A: SPST-NO

3. Enclosure Ratings

None: flux protection
4: fully sealed

4. Type

None: Standard
E: High Capacity (SPDT only)

5. Insulation Class

None: Class A
CF: Class F

6. Rated Coil Voltage

5, 9, 12, 24, or 48

Specifications

■ Coil Ratings

Rated Voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Must operate voltage	Must release voltage	Rated power consumption (W)	Max voltage
5	72	69.4	75% max.	10% min.	Approx. 0.36	130% of rated voltage at 85°C 170% of rated voltage at 23°C
9	40	225				
12	30	400				
24	15	1600				
48	10	4800			Approx. 0.48	

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of ±10%.
2. Please avoid ultrasonic cleaning this relay.

■ Contact Ratings

Rated load (resistive)	SPST-NO	10 A @ 250 VAC (NO)	10 A @ 24 VDC (NO)
	SPDT	5 A @ 125 VAC (NO/NC)	5 A @ 24 VDC (NO/NC)
	High-capacity	5 A @ 250 VAC (NO/NC)	5 A @ 24 VDC (NO/NC)
Rated carry current	10 A (SPST-NO)	10 A (High-capacity)	5 A (SPDT)
Max. switching voltage	250 VAC	24 VDC	
Max. switching current	10 A	SPST-NO	
	5 A	SPDT, High-capacity	
Max. switching capacity	2500 VA, 240 W (NO)	625 VA, 120 W (NC)	1250 VA, 120 W (NO/NC High-capacity)
Min. permissible load	100 mA at DC5V (P level: $\lambda_{60} = 0.1 \times 10^{-6}$ / ops)		
Contact Material	AgSnO ₂		

Note: SPDT type can switch up to 10 A @ 250 VAC/24 VDC Resistive Load on NO contact if there is no load on the NC contact.

■ Characteristics

Contact resistance	100 mΩ max.
Operate time	10 ms max.
Release time	5 ms max.
Max. operating frequency	Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr (under rated load)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC, 50/60 Hz for 1 minute between coil and contacts 750 VAC, 50/60 Hz for 1 minute between contacts of same polarity
Vibration resistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction: 1,000 m/s ² (approx. 100G) Malfunction: 100 m/s ² (approx. 10G)
Life expectancy	Mechanical: 10,000,000 operations min. (at 18,000 operations/hr under no load) Electrical: 100,000 operations average. (at 1,800 operations/hr under rated load)
Ambient temperature	Operating:- 40°C to 85°C (with no icing or condensation) Storage: -40°C to 85°C (with no icing or condensation)
Ambient humidity	Operating: 35% to 85% Storage: 35% to 85%
Weight	Approx. 7.5g

Note: 1. Data shown are of initial value.
2. All G5LA Class A rated relays are factory guaranteed to maximum Operating Temperature of 85°C. UL rated maximum temperature is pending approval for Class B rating.

■ Approved Standards

UL Recognized (File No. E41643) & CSA Certified (File No. LR31928) - - Ambient Temp. = 40°C

Model	Coil rating	Contact rating
G5LA	5 to 48 VDC	NO: 10 A, 277 VAC, general use, 100,000 cycles 10 A, 30 VDC, resistive, 50,000 cycles 1/2 HP, 125-250VAC, 1,000 cycles 10 A, 277 VAC, general use, 85°C 50,000 cycles (-CF type only) 200 W Tungsten, 125 VAC, 100,000 cycles NC: 10 A, 125 VAC, resistive 10 A, 277 VAC, general use, 100,000 cycles (-E type only) 10A, 24 VDC, resistive, 100,000 cycles (-E type only)

VDE0435 (EN61810-1)

Model	Coil rating	Contact rating
G5LA	5,9,12,24,48 VDC	NO: 10 A, 250 VAC, resistive, 85°C - flux protection: 50,000 cycles - fully sealed: 10,000 cycles 12 A, 125 VAC, resistive, 85°C, 10,000 cycles CO: 5 A, 250 VAC, resistive, 85°C - flux protection: 50,000 cycles - fully sealed: 10,000 cycles

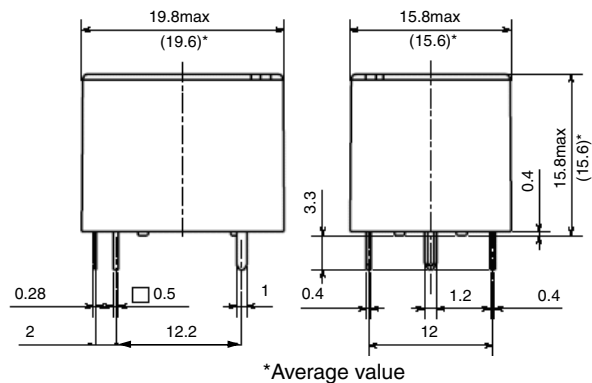
CQC

Model	Coil rating	Contact rating
G5LA	5,9,12,24,48 VDC	NO: 10 A, 250 VAC, resistive, 10,000 cycles 12 A, 120 VAC, resistive, 10,000 cycles

Dimensions

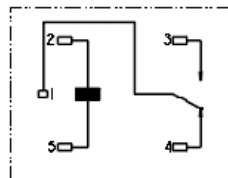
Note: All units are in millimeters unless otherwise indicated.

■ SPDT Models



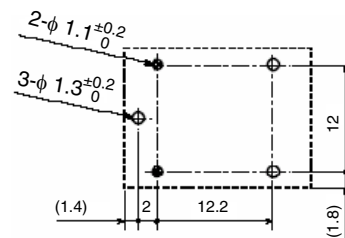
Terminal Arrangement/Internal Connections (Bottom View)

SPDT

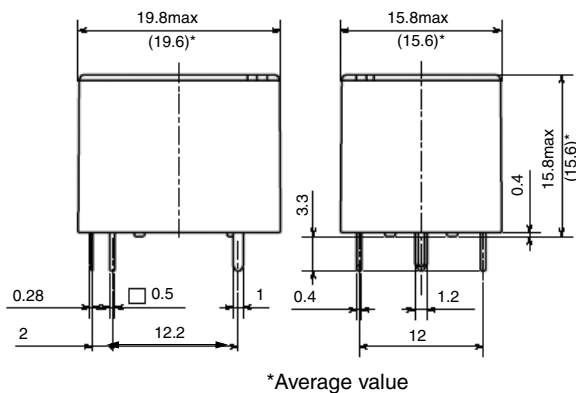


Mounting Holes (Bottom View)
Tolerance: ± 0.1 mm
Unless specified

SPDT

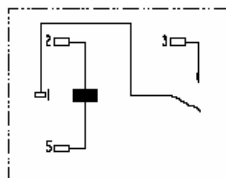


■ SPST-NO Models



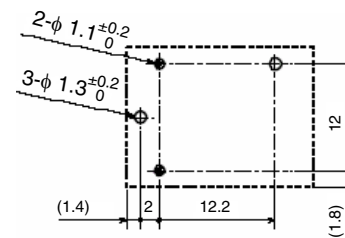
Terminal Arrangement/Internal Connections (Bottom View)

SPST-NO



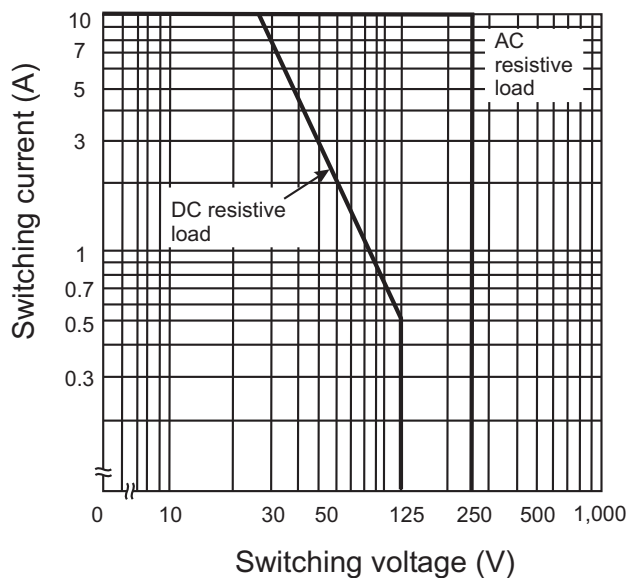
Mounting Holes (Bottom View)
Tolerance: ± 0.1 mm
Unless specified

SPST-NO

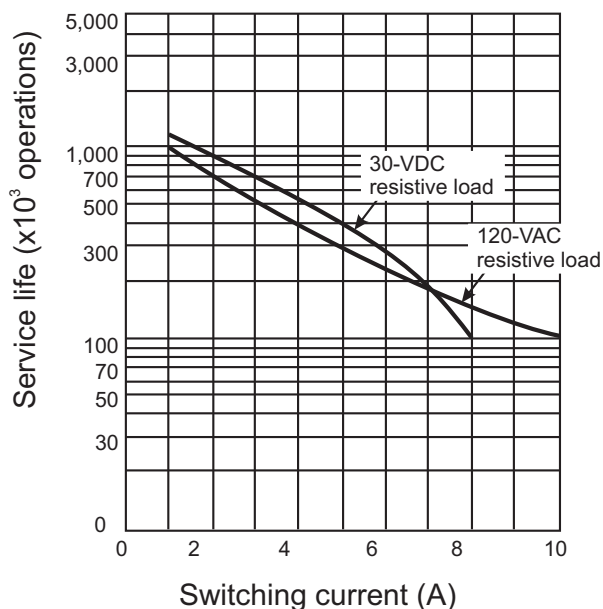


Engineering Data

Maximum switching capacity (NO)

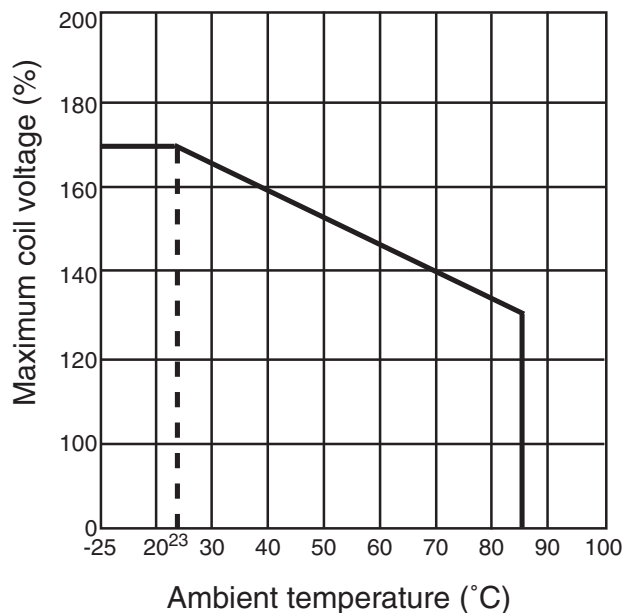


Electrical service life NO (Average value)



Note: The 120 VAC resistive load service life curve also applies for 250 VAC resistive load.

Ambient Temperature vs. Maximum Coil Voltage



Note: The maximum coil voltage refers to the maximum value in a varying range of operating power voltage not a continuous voltage.

MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 30 rows of small squares.

Omron Electronic Components, LLC

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 - Including:** Including without limitation
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 - Delivery and shipping dates are estimates only; and
 - Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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