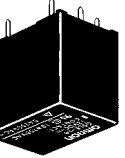
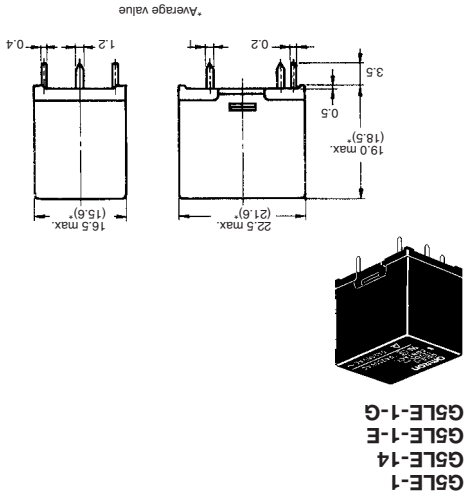


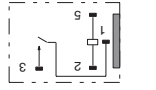
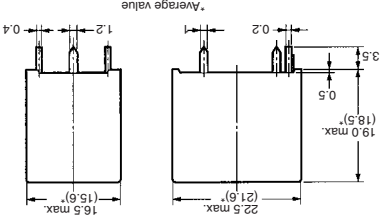
PCB Power Relay – G5LE

Dimensions

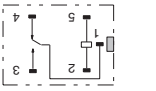
Note: 1. All units are in millimetres unless otherwise indicated.
2. Orientation marks are indicated as follows:



G5LE-1A
G5LE-1A4
G5LE-1A-E
G5LE-1A-G



Terminal Arrangement/Internal Connections (Bottom View)
Tolerance: ±0.1 mm
Mounting Holes
Four, 1.3^{±0.05} dia. holes
SPST-NO
Unless specified



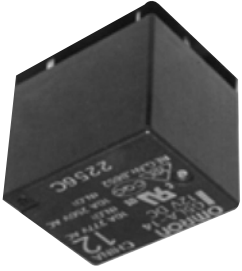
Terminal Arrangement/Internal Connections (Bottom View)
Tolerance: ±0.1 mm
Mounting Holes
Five, 1.3^{±0.05} dia. holes
SPDT
Unless specified

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

Pcb Relay – G5LA

A Cubic, Single-pole 10A Power Relay

- Small size and light weight
- 19.6 x 15.6 x 15.6 mm, 7.5g
- High insulation
- Dielectric strength 2,000V
- Withstand impulse voltage 4,500V
- High heat resistance and tracking performance
- UL class-F available (-CF model)
- IEC60335 GWT compliant
- Tracking resistance CTI>250
- Environmental friendly
- ROHS compliant.



Power Relays

Ordering Information

Contact form	Switching capacity	Flux protection		Model number
		Standard	High capacity (NC side)	
SPDT	Fully sealed	G5LA-14	G5LA-14	G5LA-14
		G5LA-14-CF	G5LA-14-CF	G5LA-14-CF
		G5LA-14-E	G5LA-14-E	G5LA-14-E
		G5LA-14-E-CF	G5LA-14-E-CF	G5LA-14-E-CF
SPST-NO	Fully sealed	G5LA-1A	G5LA-1A	G5LA-1A4
		G5LA-1A-CF	G5LA-1A-CF	G5LA-1A4-CF

Note: When ordering, add the rated coil voltage to the model number.

Examples : G5LA-1 12VDC
Rated Coil Voltage

Model Number Legend
G5LA □ □ □ □ - □ □ □ □ □ □ VDC

1. Number of Poles
1: 1 pole
2. Contact Type
None: Standard
E: High capacity (NC side)
3. Contact Form/Contact Construction
None: SPDT
A: SPST-NO
4. UL Insulation System
None: Standard
CF: Class F
5. Sealing/Protective Construction
None: Flux protection
4: Fully sealed
6. Rated Coil Voltage

PCB Relay – G5LA

Specifications

■ Coil Ratings

Rated voltage	Rated current	Coil resistance	Must operate voltage	Must release voltage	Max. voltage	Power consumption
5 VDC	72 mA	69.4 Ω	75% max. of rated voltage	10% min. of rated voltage	130% of rated voltage at 85°C, 170% of rated voltage at 23°C	360 mW
9 VDC	40 mA	225 Ω				
12 VDC	30 mA	400 Ω				
24 VDC	15 mA	1600 Ω				
48 VDC	10 mA	4800 Ω ±2				480mW

Note: The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

■ Contact Ratings

Item	Standard model		High capacity (-E) model
	NO	NO/NC	
Rated load	10A at 24VDC	5A/5A at 125VAC	5A/5A at 24VDC
Rated carry current	10A(NO), 5A(NC)	10A	10A
Max. switching voltage	250VAC, 24VDC	10A(NO), 5A(NC)	10A
Max. switching current	10A(NO), 5A(NC)	10A	10A
Max. switching power	NO	AC2,500VA, DC240W	AC1,250VAC, DC120W
Failure rate (reference value)	NO/NC	AC625VA, DC120W	AC1,250VAC, DC120W

Note: P level: λ.60 = 0.1 x 10⁶/operation

■ Characteristics

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

Note: Values in the above table are the initial values.

PCB Relay – G5LA

■ Approved Standards
UL508 (UL File No. E41643)

Model	Coil ratings	Contact ratings
G5LA	5 to 48 VDC	NO: 10A, 277VAC, general use, 100,000 cycles 10A, 277VAC, general use, 85°C, 50,000 cycles (-CF model) 15A, 125VAC, general use, 50,000 cycles 1/2Hp, 125VAC 1/2Hp, 250VAC 200W tungsten, 125VAC, 100,000 cycles NC: 10A, 125VAC, resistive 10A, 277VAC, general use, 100,000 cycles (-E model)

EN61810-1 (VDE Reg. No. B652)

Model	Coil ratings	Contact ratings
G5LA	5,6,9,12,18,24,48 VDC	NO: 10A, 250VAC, cosφ=1, 85°C, 1 sec - flux protection: 50,000 cycles 10A, 250VAC, cosφ=1, 85°C, 5 sec 10A, 250VAC, cosφ=1, 85°C, 10,000 cycles 12A, 125VAC, cosφ=1, 85°C, 10,000 cycles NC: 10A, 250VAC, cosφ=1, 85°C, 25,000 cycles 5A, 250VAC, cosφ=1, 85°C - flux protection: 50,000 cycles - fully sealed: 10,000 cycles

GB15092.1 (CQC File No. CQC6001015477)

Model	Coil ratings	Contact ratings
G5LA	5,9,12,24,48 VDC	NO: 10A, 250VAC, resistive, 10,000 cycles 12A, 120VAC, resistive, 10,000 cycles NO/NC: 10A, 250VAC, resistive, 10,000 cycles (-E model) 10A, 250VAC, resistive, 10,000 cycles (-E model) 12A, 250VAC, resistive, 10,000 cycles (-E model)

Power Relays

PCB Relay – G5LA

Specifications

■ Coil Ratings

Rated voltage	Rated current	Coil resistance	Must operate voltage	Must release voltage	Max. voltage	Power consumption
5 VDC	72 mA	69.4 Ω	75% max. of rated voltage	10% min. of rated voltage	130% of rated voltage at 85°C, 170% of rated voltage at 23°C	360 mW
9 VDC	40 mA	225 Ω				
12 VDC	30 mA	400 Ω				
24 VDC	15 mA	1600 Ω				
48 VDC	10 mA	4800 Ω ±2				480mW

Note: The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

■ Contact Ratings

Item	Standard model		High capacity (-E) model
	NO	NO/NC	
Rated load	10A at 24VDC	5A/5A at 125VAC	5A/5A at 24VDC
Rated carry current	10A(NO), 5A(NC)	10A	10A
Max. switching voltage	250VAC, 24VDC	10A(NO), 5A(NC)	10A
Max. switching current	10A(NO), 5A(NC)	10A	10A
Max. switching power	NO	AC2,500VA, DC240W	AC1,250VAC, DC120W
Failure rate (reference value)	NO/NC	AC625VA, DC120W	AC1,250VAC, DC120W

Note: P level: λ.60 = 0.1 x 10⁶/operation

■ Characteristics

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

Note: Values in the above table are the initial values.

PCB Relay – G5LA

■ Approved Standards
UL508 (UL File No. E41643)

Model	Coil ratings	Contact ratings
G5LA	5 to 48 VDC	NO: 10A, 277VAC, general use, 100,000 cycles 10A, 277VAC, general use, 85°C, 50,000 cycles (-CF model) 15A, 125VAC, general use, 50,000 cycles 1/2Hp, 125VAC 1/2Hp, 250VAC 200W tungsten, 125VAC, 100,000 cycles NC: 10A, 125VAC, resistive 10A, 277VAC, general use, 100,000 cycles (-E model)

EN61810-1 (VDE Reg. No. B652)

Model	Coil ratings	Contact ratings
G5LA	5,6,9,12,18,24,48 VDC	NO: 10A, 250VAC, cosφ=1, 85°C, 1 sec - flux protection: 50,000 cycles 10A, 250VAC, cosφ=1, 85°C, 5 sec 12A, 125VAC, cosφ=1, 85°C, 10,000 NC: 10A, 250VAC, cosφ=1, 85°C, 25,000 5A, 250VAC, cosφ=1, 85°C - flux protection: 10,000 cycles - fully sealed: 10,000 cycles

GB15092.1 (CQC File No. CQC6001015477)

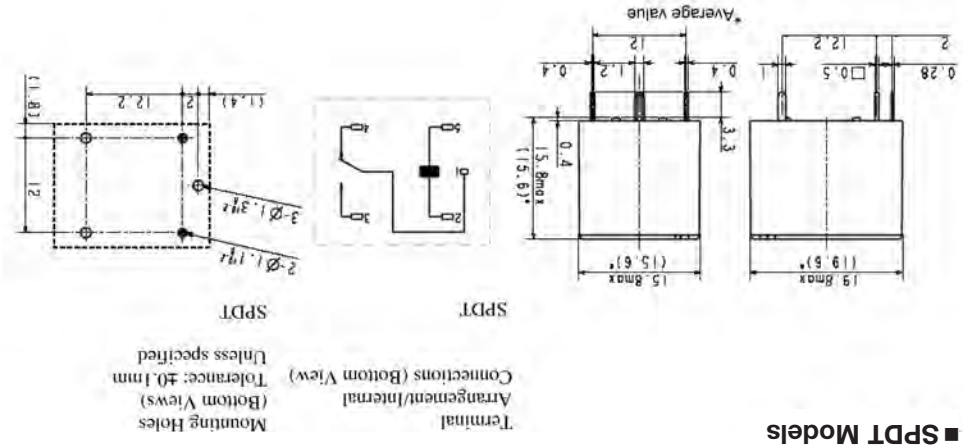
Model	Coil ratings	Contact ratings
G5LA	5,9,12,24,48 VDC	NO: 10A, 250VAC, resistive, 10,000 cycles 12A, 120VAC, resistive, 10,000 cycles NO/NC: 10A, 250VAC, resistive, 10,000 cycles (-E model) 12A, 250VAC, resistive, 10,000 cycles (-E model)

Power Relays

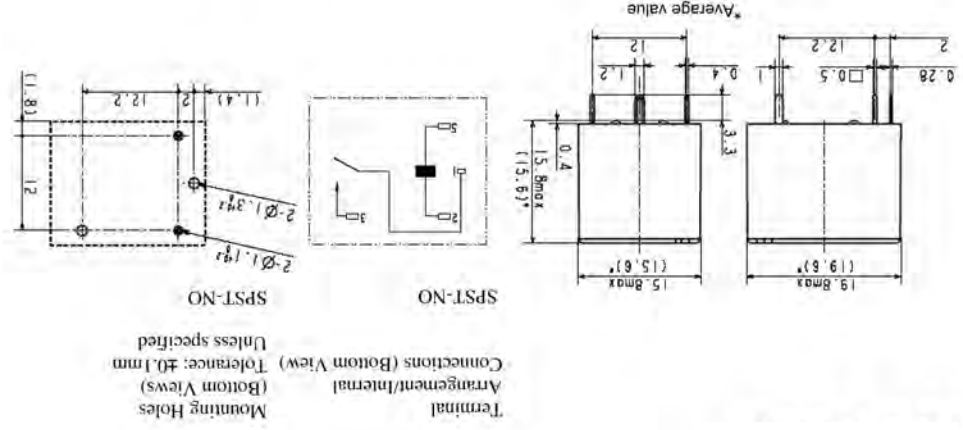
PCB Relay - G5LA

Dimensions

Note: All units are in millimeters unless otherwise indicated.



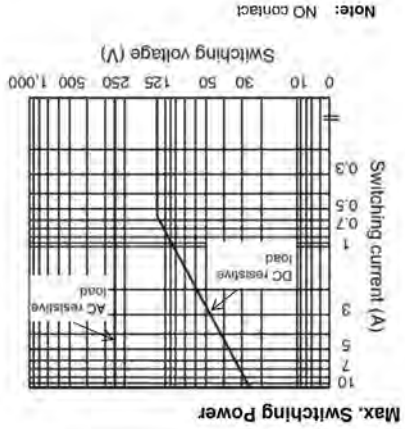
■ SPDT Models



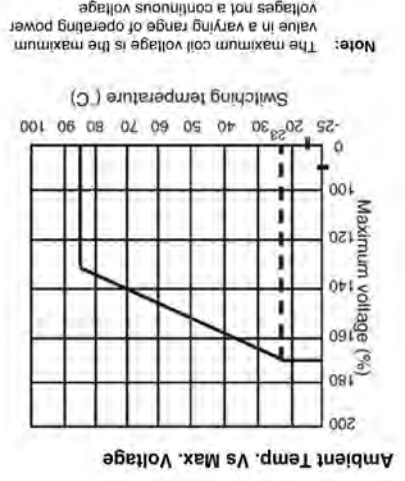
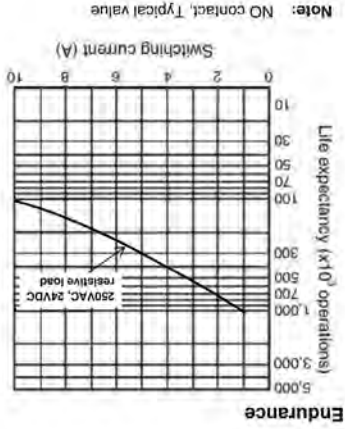
■ SPST-NO Models

PCB Relay - G5LA

Engineering Data



Note: NO contact.



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

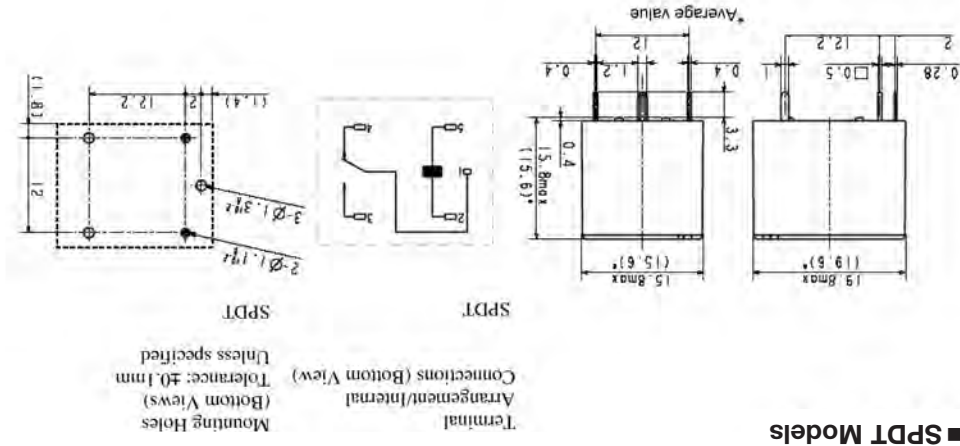
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To convert millimetres into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

CAT. No. K901-E2-01

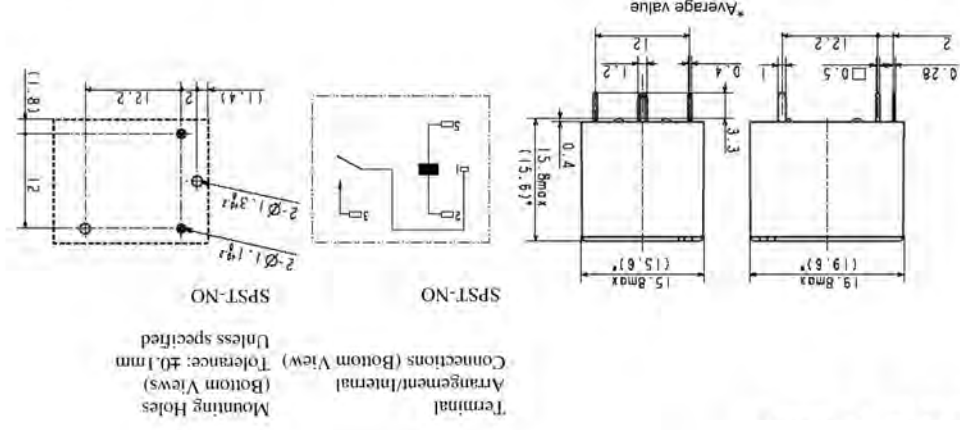
PCB Relay – G5LA

Dimensions

Note: All units are in millimeters unless otherwise indicated.



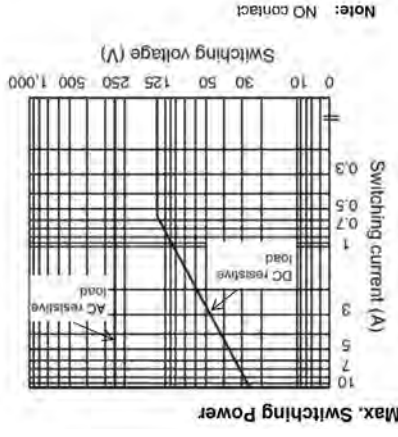
■ SPDT Models



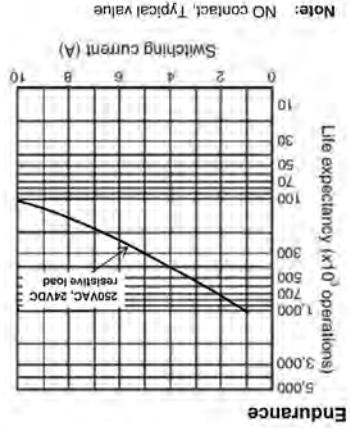
■ SPST-NO Models

PCB Relay – G5LA

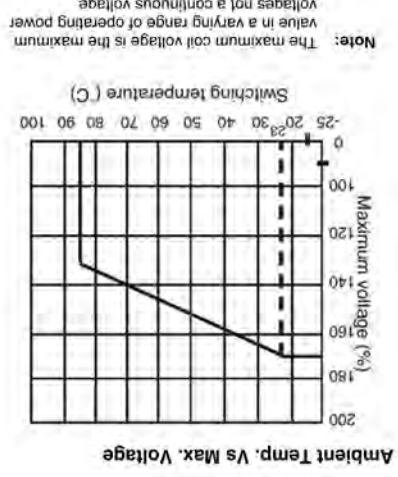
Engineering Data



Note: NO contact



Note: NO contact, Typical value



Note: The maximum coil voltage is the maximum value in a varying range of operating power voltages not a continuous voltage

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

CAT. No. K901-E2-01

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