

## A Miniature Power Relay with 1-pole 10A Switching Capacity

- Compact single pole relay.
- Excellent switching performance for a variety of loads.
- Small, yet provide 8-kV impulse withstand voltage (between coil and contacts).
- Low coil power consumption (SPST-NO: 200 mW, SPDT: 400 mW)
- Coil insulation system: Class F (UL1446).
- IEC/EN 60335-1 conformed. (-HA Model)



**RoHS Compliant**

### Model Number Legend

G5Q-□□□-□-□-□  
1 2 3 4 5 6

#### 1. Number of Poles

1 : 1-pole

#### 2. Contact Form

None : SPDT (1c)

A : SPST-NO (1a)

#### 3. Enclosure rating

None : Flux protection

4 : Sealed

#### 4. Classification

None : Standard

EU : High-capacity

#### 5. Market Code

None : General purpose

HA : Home Appliance according to

IEC/EN60335-1

#### 6. Coil Holding Voltage

None : Not supported

PW : Supported

### Application Examples

- Ideal for output applications of control equipments.

### Ordering Information

| Terminal Shape | Market Code     | Classification | Contact form    | Enclosure rating | Model        | Rated coil voltage | Minimum packing unit |
|----------------|-----------------|----------------|-----------------|------------------|--------------|--------------------|----------------------|
| PCB terminals  | General purpose | Standard       | SPST-NO(1a)     | Flux protection  | G5Q-1A       | 5VDC               | 100 pcs/tray         |
|                |                 |                |                 | Sealed           | G5Q-1A4      | 9VDC               |                      |
|                |                 |                | SPDT(1c)        | Flux protection  | G5Q-1        | 12VDC              |                      |
|                |                 |                |                 |                  | G5Q-1-PW     | 24VDC              |                      |
|                |                 | Sealed         | G5Q-14          | 5VDC             |              |                    |                      |
|                |                 |                |                 | 9VDC             |              |                    |                      |
|                |                 | High-capacity  | SPST-NO(1a)     | Flux protection  | G5Q-1A-EU    | 12VDC              |                      |
|                |                 |                |                 | Sealed           | G5Q-1A4-EU   | 24VDC              |                      |
|                | SPDT(1c)        |                | Flux protection | G5Q-1-EU         | 5VDC         |                    |                      |
|                |                 |                | Sealed          | G5Q-14-EU        | 12VDC        |                    |                      |
|                | Home Appliance  | Standard       | SPST-NO(1a)     | Flux protection  | G5Q-1A-HA    | 24VDC              |                      |
|                |                 | High-capacity  |                 |                  | G5Q-1A-EU-HA | 5VDC               |                      |
|                |                 | Standard       | SPDT(1c)        |                  | G5Q-1-HA     | 12VDC              |                      |
|                |                 |                |                 |                  | G5Q-1-HA-PW  | 24VDC              |                      |
| High-capacity  |                 | SPDT(1c)       | G5Q-1-EU-HA     |                  | 5VDC         |                    |                      |
|                |                 |                | G5Q-1-HA-PW     |                  | 24VDC        |                    |                      |

Note 1. When ordering, add the rated coil voltage to the model number.

Example: G5Q-1A DC5

Rated coil voltage

Note 2. Contact your OMRON sales representative for tube packing models (40 pcs/tube).

■Ratings

●Coil

| Contact form | Rated voltage | Rated current (mA) | Coil resistance (Ω) | Must operate voltage (V) | Must release voltage (V) | Max. voltage (V)  | Power consumption (mW)     |
|--------------|---------------|--------------------|---------------------|--------------------------|--------------------------|-------------------|----------------------------|
| SPST-NO (1a) | 5 VDC         | 40                 | 125                 | 75% max.                 | 5% min.                  | 190%<br>(at 23°C) | Approx. 200                |
|              | 9 VDC         | 22.2               | 405                 |                          |                          |                   |                            |
|              | 12 VDC        | 16.7               | 720                 |                          |                          |                   |                            |
|              | 24 VDC        | 8.3                | 2880                |                          |                          |                   |                            |
| SPDT (1c)    | 5 VDC         | 80                 | 63                  |                          | 5% min.<br>5 to 25%*     |                   | Approx. 400<br>Approx. 36* |
|              | 9 VDC         | 44.4               | 202                 |                          |                          |                   |                            |
|              | 12 VDC        | 33.3               | 360                 |                          |                          |                   |                            |
|              | 24 VDC        | 16.7               | 1440                |                          |                          |                   |                            |

Note 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

Note 2. The operating characteristics are measured at a coil temperature of 23°C.

Note 3. The “Max. voltage” is the maximum voltage that can be applied to the relay coil.

\* Power consumption with Holding Voltage is 36mW. Please confirm the detail in page 6 Coil Voltage Reduction (Holding Voltage).

●Contacts

| Item                   | Load                                            | Resistive load  |                      |                      |               |
|------------------------|-------------------------------------------------|-----------------|----------------------|----------------------|---------------|
|                        |                                                 | SPST-NO (1a)    |                      | SPDT (1c)            |               |
|                        |                                                 | Standard        | High-capacity        | Standard             | High-capacity |
| Contact Type           | Single                                          |                 |                      |                      |               |
| Contact material       | Ag-Alloy (Cd free)                              |                 |                      |                      |               |
| Rated load (resistive) | 10 A at 125 VAC                                 | 10 A at 250 VAC | 10 A at 125 VAC (NO) | 10 A at 250 VAC (NO) |               |
|                        | 3 A at 125 VAC                                  | 3 A at 125 VAC  | 3 A at 125 VAC (NO)  | 3 A at 125 VAC (NO)  |               |
|                        | 5 A at 250 VAC                                  | 5 A at 250 VAC  | 5 A at 250 VAC (NO)  | 5 A at 250 VAC (NO)  |               |
|                        | 3 A at 250 VAC                                  | 3 A at 250 VAC  | 3 A at 250 VAC (NO)  | 3 A at 250 VAC (NO)  |               |
|                        | 5 A at 30 VDC                                   | 5 A at 30 VDC   | 5 A at 30 VDC (NO)   | 5 A at 30 VDC (NO)   |               |
|                        |                                                 |                 | 3 A at 125 VAC (NC)  | 3 A at 125 VAC (NC)  |               |
|                        |                                                 |                 | 3 A at 250 VAC (NC)  | 3 A at 250 VAC (NC)  |               |
|                        |                                                 |                 | 3 A at 30 VDC (NC)   | 3 A at 30 VDC (NC)   |               |
| Rated carry current    | 10 A (NO)/3 A (NC)                              |                 |                      |                      |               |
| Max. switching voltage | 277 VAC, 30 VDC                                 |                 |                      |                      |               |
| Max. switching current | AC: 10 A (NO)/3 A (NC)<br>DC: 5 A (NO)/3 A (NC) |                 |                      |                      |               |