## OmROn

## PCB Relay

G5LE-E/-G

## Single-pole 10A35VDC 0.8mm Contact Gap Power Relay : G5LE-G

## Single-pole 16A250VAC Power Relay : G5LE-E

- Sub-miniature 'sugar cube ' relay with universal terminal footprint.

■ UL class-F coil insulation system.

- Tracking resistance: CTI>250.
- Withstands impulse of up to $4,500 \mathrm{~V}$.

■ RoHS compliant.


## Ordering Information

| Enclosure Rating | Contact Form | Rated load |  |
| :---: | :---: | :---: | :---: |
|  |  | 10A 35VDC | 16A 250VAC |
| Flux protection | G5LE-1-G | G5LE-1-E |  |
|  | SPST-NO | G5LE-1A-G | G5LE-1A-E |

Note: When ordering, add the rated coil voltage to the number.
Examples: G5LE-1-E 12 VDC

## - Model Number Legend

G5LE - $\frac{\square}{1}$

 $-\bar{\square}$ $\stackrel{\square}{5}$


5. Classification

G: 0.8 mm contact gap type
E : High capacity type
Contact Form
None : SPDT
A : SPST-NO
3. Enclosure ratings None : Flux protection
4. Insulation System

None : Class F $\left(155^{\circ} \mathrm{C}\right)$

8 Rated Coil Voltage
5, 12 \& 24 (for suffix-E)
$9,12,20 \& 24$ (for suffix-G)

## Specifications

## - Coil Ratings

700-mW Type (G5LE-G)

| Rated voltage | 9 VDC | 12 VDC | 20 VDC | 24 VDC |
| :--- | :---: | :---: | :---: | :---: |
| Rated current | 77.8 mA | 58.3 mA | 35.0 mA | 29.2 mA |
| Coil resistance | $115.7 \Omega$ | $205.7 \Omega$ | $571.4 \Omega$ | $822.9 \Omega$ |
| Must operate voltage | $75 \%$ of rated voltage (max.) |  |  |  |
| Must release voltage | $10 \%$ of rated voltage (min.) |  |  |  |
| Max. voltage | $120 \%$ of rated voltage at $85^{\circ} \mathrm{C}, 150 \%$ of rated voltage at $23^{\circ} \mathrm{C}$ |  |  |  |
| Power consumption | Approx. 700 mW |  |  |  |

Note: The rated current and coil resistance are measured at a coil temperature of $23^{\circ} \mathrm{C}$ with a tolerance of $\pm 10 \%$.

400-mW Type (G5LE-E)

| Rated voltage | 5 VDC | 12 VDC | 24 VDC |
| :--- | :---: | :---: | :---: |
| Rated current | 80.0 mA | 33.3 mA | 16.7 mA |
| Coil resistance | $62.5 \Omega$ | $360.0 \Omega$ | $1440.0 \Omega$ |
| Must operate voltage | $75 \%$ of rated voltage (max.) |  |  |
| Must release voltage | $10 \%$ of rated voltage (min.) |  |  |
| Max. voltage | $130 \%$ of rated voltage at $85^{\circ} \mathrm{C}, 170 \%$ of rated voltage at $23^{\circ} \mathrm{C}$ |  |  |
| Power consumption | Approx. 400 mW |  |  |

Note: The rated current and coil resistance are measured at a coil temperature of $23^{\circ} \mathrm{C}$ with a tolerance of $\pm 10 \%$.

360-mW Type (G5LE-E-36)

| Rated voltage | 5 VDC | 12 VDC |
| :--- | :---: | :---: |
| Rated current | 72.0 mA | 30.0 mA |
| Coil resistance | $69.4 \Omega$ | $400.0 \Omega$ |
| Must operate voltage | $75 \%$ of rated voltage (max.) | 15.0 mA |
| Must release voltage | $10 \%$ of rated voltage (min.) | $1600.0 \Omega$ |
| Max. voltage | $130 \%$ of rated voltage at $85^{\circ} \mathrm{C}, 170 \%$ of rated voltage at $23^{\circ} \mathrm{C}$ |  |
| Power consumption | Approx. 360 mW |  |

Note: The rated current and coil resistance are measured at a coil temperature of $23^{\circ} \mathrm{C}$ with a tolerance of $\pm 10 \%$.

## - Contact Ratings

| Item | G5LE-G | G5LE-E/-E-36 |
| :--- | :--- | :--- |
| Load | Resistive load $(\cos \varnothing=1)$ | Resistive load ( $\cos \varnothing=1$ ) |
| Rated load | 10 A at 35 VDC | 16 A at 250VAC |
| Rated carry current | 10 A | 16 A |
| Max. switching voltage | 35 VDC | 250 VAC |
| Max. switching current | DC $: 10 \mathrm{~A}$ | AC $: 16 \mathrm{~A}$ |
| Max. switching capacity | 350 W | 4000 VA |
| Min. permissible load | 100 mA at 5 VDC | 100 mA at 5 VDC |

Characteristics

| Contact resistance | $100 \mathrm{~m} \Omega$ max. |
| :---: | :---: |
| Operate time | 10ms max. |
| Release time | $5 \mathrm{~ms} \mathrm{max}$. |
| Bounce time | Operate : Approx. 0.6 ms Release $:$ Approx. 7.2 ms |
| Max. switching frequency | Mechanical $: 18,000$ operations $/ \mathrm{hr}$ <br> Electrical $: ~ * 1,800$ operations $/ \mathrm{hr}$ |
| Insulation resistance | $100 \mathrm{M} \Omega \mathrm{min}$. (at 500VDC) |
| Dielectric strength | 750VAC (for suffix -E), $50 / 60 \mathrm{~Hz}$ for 1 min . between contacts of same polarity 1500VAC (for suffix -G), $50 / 60 \mathrm{~Hz}$ for 1 min . between contacts of same polarity 2,000VAC, $50 / 60 \mathrm{~Hz}$ for 1 min . between coil and contacts |
| Impulse withstand voltage | $4,500 \mathrm{~V}$ between coil and contacts, $1.2 \times 50 \mu \mathrm{sec}$ |
| Vibration resistance | Destruction $:$ 10 to $55 \mathrm{~Hz}, 1.5 \mathrm{~mm}$ double amplitude <br> Malfunction $: 10$ to $55 \mathrm{hHz}, 1.5 \mathrm{~mm}$ double amplitude  |
| Shock resistance | Destruction $: 1,000 \mathrm{~m} / \mathrm{s}^{2}$ (approx. 100G) <br> Malfunction $: 100 \mathrm{~m} / \mathrm{s}^{2}$ (approx. 10G) |
| Life expectancy | Mechanical $:$ $10,000,000$ operations $\min$. (at 18,000 operations/hr) <br> Electrical $:$ ${ }^{*} 100,000$ operations $\min$. (at 1,800 operations/hr, 12A 250VAC) |
| Ambient temperature | Operating : $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |
| Ambient humidity | Operating : $35 \%$ to $85 \%$ |
| Weight | Approx. : 12g |

Note : * Applicable for G5LE-1-E normally open contact only.

## Approved Standards

UL508, UL114, UL478, UL325, UL873, UL1409 (File No. E41643)/CSA
C22.2 No. 14, No. 1 (File No. LR31928)

| Model | Coil ratings | Contact ratings |
| :---: | :---: | :---: |
| G5LE-E/-E-36 | 5 to 24 VDC | 16 A, 250 VAC (general use, normally open contact, 50,000 cycles) <br> 12 A, 250 VAC (general use, normally open contact, $105^{\circ} \mathrm{C}, 100,000$ cycles) <br> 12 A, 250 VAC (general use, normally close contact, 30,000 cycles) |
| G5LE-G | 9 to 24 VDC | 10 A, 35 VDC (resistive, normally open contact, 100,000 cycles) <br> 10 A, 35 VDC (resistive, normally close contact, 50,000 cycles) |

EN61810-1 (2nd Ed) / EN60255-25 (VDE Reg. No. 6850)

| Model | Coil Rating | Contact rating |
| :--- | :--- | :--- |
| G5LE-E/-E-36 | 5 to 24 VDC | $16 \mathrm{~A}, 250 \mathrm{VAC}$ (resistive, normally open contact, $85^{\circ} \mathrm{C}$ <br> $50,000 \mathrm{cycles})$ <br> $12 \mathrm{~A}, 250 \mathrm{VAC}$ (resistive, normally open contact, <br> $105^{\circ} \mathrm{C}, 75,000$ cycles) |
| G5LE-G |  |  |
|  | 9 to 24 VDC | $10 \mathrm{~A}, 35 \mathrm{VDC}$ (resistive, normally open contact, <br> 100,000 cycles) <br> $10 \mathrm{~A}, 35 \mathrm{VDC}$ (resistive, normally close contact, <br> 50,000 cycles) |

## Engineering Data



## Dimensions

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


## Packaging

Note : 1. All units are millimeters unless otherwise indicated.
■ Polystyrene Trays Packing

| 1 Polystyrene | $=$ | 100 | pcs relay |
| :--- | :--- | :--- | :--- |
| 1 Sleeve Packing | $=$ | 5 | polystyrene tray |
| 1 Carton | $=$ | 4 | sleeve packing |
|  | $=$ | $\mathbf{2 0 0 0}$ | pcs relay |
| Weight | $=$ | Approx. 24 Kg per carton |  |

- Size of polystyrene tray: Approx. $311 \times 196 \times 35 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \times H)$
- Size of Carton:

Approx. $450 \times 316 \times 320 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \mathrm{xH})$


## ■ Tube Packing

| 1 Tube | $=$ | 25 | relays |
| :--- | :--- | :--- | :--- |
| 1 Carton |  |  | 40 tubes |
|  |  |  | 1,000 relays |
| Weight |  | Approx. 12 Kg per carton |  |
| - Size of Carton: | Approx. $512 \times 252 \times 105 \mathrm{~mm}(\mathrm{~L} \times \mathrm{W} \times \mathrm{H})$ |  |  |



Ordering Information - Packaging

| G5LE-1-E- ${ }^{\text {d }}$ DC12 | by OMB | $\frac{\text { KEY }}{\text { None }}$ | DESCRIPTION |
| :---: | :---: | :---: | :---: |
|  |  |  | Standards Polystyrene tray |
|  |  | SP | Anti-static Tube packing |
| G5LE-1-G-पDC20 | by OMB | KEY | DESCRIPTION |
|  |  | None | Standards Polystyrene tray |
|  |  |  | Anti-static Tube packing |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components
Click to view similar products for General Purpose Relays category:
Click to view products by Omron manufacturer:

Other Similar products are found below :

```
APF30318 JVN1AF-4.5V-F PCN-105D3MHZ 5JO-10000S-SIL 5JO-1000CD-SIL 5JO-400CD-SIL LY2S-AC220/240 LYQ20DC12
6031007G 6131406HQ 6-1393099-3 6-1393099-8 6-1393122-4 6-1393123-2 6-1393767-1 6-1393843-7 6-1415012-1 6-1419102-2 6-
1423698-4 6-1608051-6 6-1608067-0 6-1616170-6 6-1616248-2 6-1616282-3 6-1616348-2 6-1616350-1 6-1616350-8 6-1616358-7 6-
1616359-9 6-1616360-9 6-1616931-6 6-1617039-1 6-1617052-1 6-1617090-2 6-1617090-5 6-1617347-5 6-1617353-3 6-1617801-8 6-
1617802-2 6-1618107-9 6-1618248-4 M83536/1-027M CX-4014 MAHC-5494 MAVCD-5419-6 703XCX-120A 7-1393100-5 7-1393111-7
7-1393144-5 7-1393767-8
```

