

G8JR

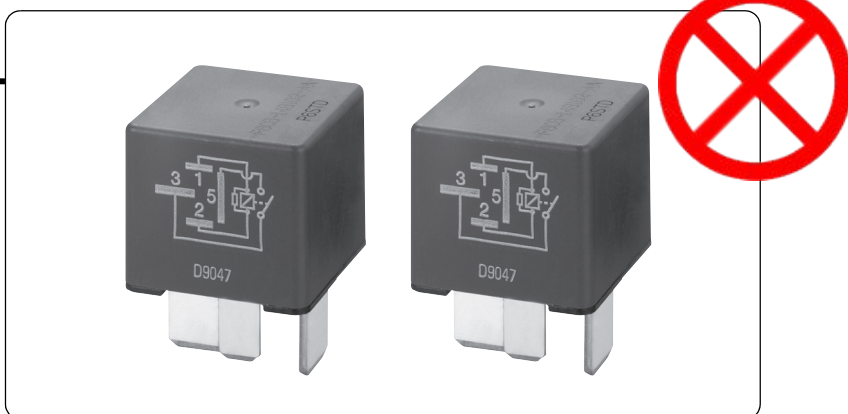
Automotive High-current ISO relay

This announcement is based on product catalogue information previously shown before its discontinuation.

Product information of the existing product may be different from this version.

High-current switching (inrush current 150A) relay for automotive use

- Wide operating temperature range; -40 to +125°C
- Terminal layout based on ISO



■ Type standard

G8JR-□□□□-□

① ② ③ ④ ⑤

| | Classification | Symbol | Meaning of the symbol |
|---|-------------------------|--------|-------------------------|
| ① | Number of contact poles | 1 | Number of contact poles |
| ② | Contact structure | A | 1a contact |
| ③ | Protective structure | 7 | Unsealed (In a case) |
| ④ | Terminal form | T | Plug-in type |
| ⑤ | Surge suppressor | R | Built-in resistor |

■ Classification

| Classification | Terminal form | Contact structure | Protective structure | Rated coil voltage | | Type |
|------------------|----------------------|-------------------|----------------------|--------------------|----------------|-------------|
| | | | | Voltage (V) | Resistance (Ω) | |
| High current ISO | Plug-in ISO terminal | SPST (1a) | Unsealed (In a case) | DC12 | 78 | G8JR-1A7T-R |

■ Ratings

● Operation coil

| Rated voltage (V) | Coil resistance (Ω) | | | Rated current (mA) | Operating voltage (V) | Release voltage (V) | Service voltage range (V) | Rated power consumption (mW) |
|-------------------|---------------------|---------------|-----------------------------|--------------------|-----------------------|---------------------|---------------------------|------------------------------|
| | Between terminals | Internal coil | Surge suppressor resistance | | | | | |
| DC12 | 78 | 88 | 1/2W 680 | 154 | 8.0 or less | 1.0 or more | DC10 to 16 | 1846 |

● Switching area

| | Performance |
|--------------------------------|----------------------|
| Contact material | Silver alloy |
| Rated voltage | DC12V |
| Rated load | Resistance load, 50A |
| Inrush current | 150A |
| Continuous carry current*1 | 50A |
| Min. Carry / Switching Current | DC12V 1A |

Please confirm Omron Safety Precautions for all automotive relays first.

Omron can not guarantee automotive relays before finish making a contract with product specifications.

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Performance

| Item | | Standard value |
|-------------------------------------|----------------------------|---|
| Voltage drop between terminals | | 50 mV or less, 10A |
| Operating time ^{*2} | | 20 ms at longest at 14V (Normally 5.7 ms) |
| Release time ^{*2} | | 10 ms at longest at 14V (Normally 2.3 ms) |
| Insulation resistance ^{*3} | Between coil and terminal | 20MΩ or more |
| | Between homopolar contacts | 20MΩ or more |
| Withstand voltage ^{*4} | Between coil and terminal | AC500V for 1minute |
| | Between homopolar contacts | AC500V for 1minute |
| Vibration tolerance | Durability | 33Hz 43.1m/s ² |
| | Malfunction | 20 to 500Hz 43.1m/s ² |
| Mechanical endurance | | 1,000,000 times |
| Electrical endurance | | 100,000 times or more (load dependent) |
| Ambient temperature | | -40 to +125°C |
| Ambient humidity | | 35 to 95%RH |
| Weight | | Approx. 39.0g |

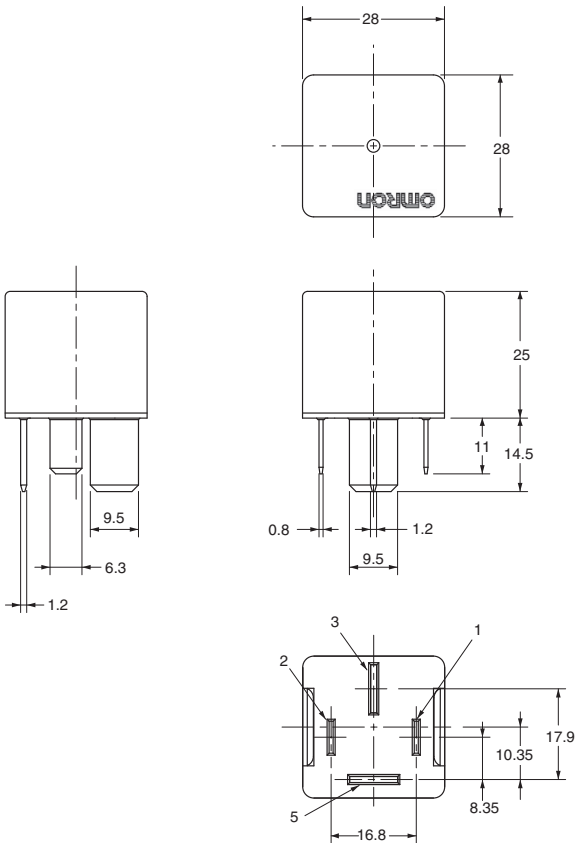
Packing

| Packing form | Tray |
|-------------------|---------------------------|
| MOQ ^{*5} | 336pcs (48pcs to 7 trays) |

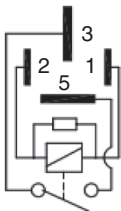
Note: All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated.
*1. The value stated is at maximum temperature in a guaranteed ambient temperature.
*2. It changes depend on how a rated voltage is operated, but bounce-time is not included.
*3. Measured at DC500V.
*4. Measured under 1mA of leak current, 50/60Hz for 1 minute.
*5. Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.

Dimensions (Unit: mm)

G8JR-1A7T-R



Terminal arrangement / Internal connections (BOTTOM VIEW)



* Tolerance unless otherwise specified
Less than 1 mm: ±0.1 mm
Less than 1 to 3 mm: ±0.2 mm
3 mm or more: ±0.3 mm

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