## **G8JR**Automotive High-current ISO relay

# 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

1 2 3 4 5

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

### **■** Classification

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

#### ■ Ratings

#### Operation coil

	Rated	Coil resistance (Ω)		Potod	Operating	Release	Carvina valtaga	Rated power	
	voltage (V)	Between terminals	Internal coil	Surge suppressor resistance	Rated current (mA)	Operating voltage (V)	voltage (V)	Service voltage range (V)	consumption (mW)
	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

#### I 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	Between coil and terminal	20M $\Omega$ or more		
resistance*3	Between homopolar contacts	$20$ Μ $\Omega$ or more		
Withstand	Between coil and terminal	AC500V for 1 minute		
voltage*4	Between homopolar contacts	AC500V for 1minute		
Vibration	Durability	33Hz 43.1m/s <sup>2</sup>		
tolerance	Malfunction	20 to 500Hz 43.1m/s <sup>2</sup>		
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 <sup>*5</sup>	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.

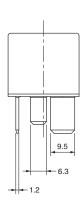
- The value stated is at maximum temperature in a guaranteed ambient temperature.
- It changes depend on how a rated voltage is operated, but bounce-time is not included.

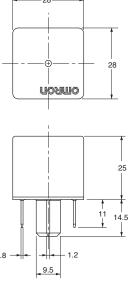
- \*3. Measured at DC500V.\*4. Measured under 1mA\*5. Minimum Order Quant Measured under 1mA of leak current, 50/60Hz for 1minute.

  Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.

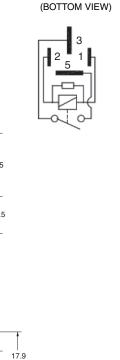
#### **■ Dimensions** (Unit: mm)

G8JR-1A7T-R





-16.8



Terminal arrangement/ Internal connections

\* 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

Please confirm Omron Safety Precautions for all automotive relays first. Omron can not guarantee automotive relays before finish making a contract with product specifications.