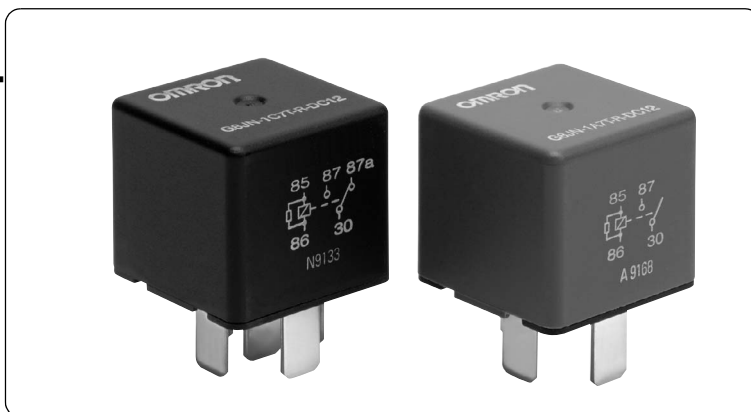


# G8JN

Automotive Mini ISO relay

## High current switching (inrush current 100A) relay for automotive use

- Both SPST and SPDT available
- Plug in and Weatherproof type
- L x W x H = 28 x 28 x 25.5 mm nominal
- ISO footprint and terminals 6.3 x 0.82 mm
- Full automated Assembly



### ■ Type standard

G8JN-□□□□-□-□

① ② ③ ④ ⑤ ⑥

	Classification	Symbol	Meaning of the symbol
①	Number of contact poles	1	Number of contact poles
②	Contact structure	A	1a contact
		C	1c contact
③	Protective structure	6	Unsealed (Weather proof type)
		7	Unsealed (In a case)
④	Terminal form	T	Plug-in type
⑤	Bracket type	-	Standard case
		F	Metal bracket + Connector guide
		MF	Plastic bracket case
⑥	Surge suppressor	R	Built-in resistor

### ■ Classification

Classification	Terminal form	Contact structure	Protective structure	Rated coil voltage		Type	Bracket
				Voltage (V)	Resistance (Ω)		
Mini ISO	Plug-in ISO terminal	SPST (1a)	Unsealed (Weather proof type)	DC12	68	G8JN-1A6T-F-R	Metal bracket + Connector guide
			Unsealed (In a case)			G8JN-1A7T-R	Standard plug-in
		SPDT (1c)	G8JN-1A7T-MF-R			Plastic bracket	
			Unsealed (Weather proof type)			G8JN-1C6T-F-R	Metal bracket + Connector guide
			Unsealed (In a case)			G8JN-1C7T-R	Standard plug-in
			G8JN-1C7T-MF-R			Plastic bracket	

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

## ■ Ratings

### ● Operation coil

Rated voltage (V)	Coil resistance ( $\Omega$ )			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	68	76	1/2W 680	176	8.0 or less	1.0 or more	DC10 to 16	2118

### ● Switching area

Item		Performance
Contact material		Silver alloy
Rated voltage		DC12V
Rated load	N.O. side	Resistance load, 35A
	N.C. side	Resistance load, 20A
Inrush current	N.O. side	120A
	N.C. side	40A
Continuous carry current <sup>1</sup>	N.O. side	35A
	N.C. side	20A
Min. Carry / Switching Current		DC12V 1A

## ■ Performance

Item		Standard value
Voltage drop between terminals	N.O. side	50 mV or less, 10A
	N.C. side	50 mV or less, 10A
Operating time <sup>2</sup>		Max. 10ms at 13.5V (Normally 5.4 ms)
Release time <sup>2</sup>		Max. 10ms at 13.5V (Normally 1.6 ms)
Insulation resistance <sup>3</sup>	Between coil and terminal	20M $\Omega$ or more
	Between homopolar contacts	20M $\Omega$ or more
Withstand voltage <sup>4</sup>	Between coil and terminal	AC500V for 1minute
	Between homopolar contacts	AC500V for 1minute
Vibration tolerance	Durability	33Hz 43.1m/s <sup>2</sup>
	Malfunction	20 to 500Hz 43.1m/s <sup>2</sup>
Mechanical endurance		1,000,000 times
Electrical endurance		100,000 times
Ambient temperature		-40 to +125°C
Ambient humidity		35 to 95%RH
Weight		Approx. 34.0 g

## ■ Packing

Packing form	Tray
MOQ <sup>5</sup>	336pcs (48pcs×7 trays)

Note: All values above are 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. 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.

Please confirm Omron Safety Precautions for all automotive relays first.

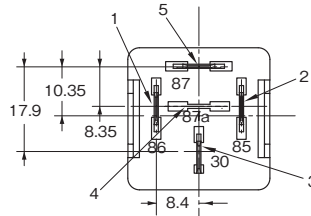
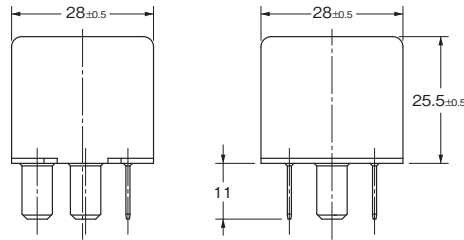
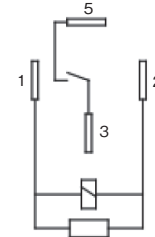
Omron can not guarantee automotive relays before finish making a contract with product specifications.

## ■ Dimensions (Unit: mm)

### G8JN-1A7T-R



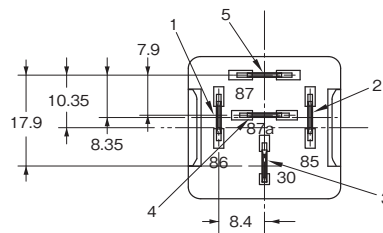
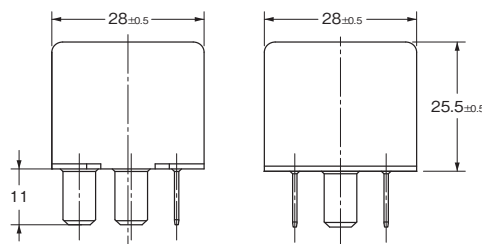
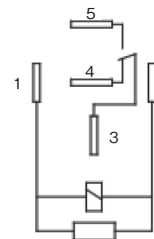
Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)



### G8JN-1C7T-R



Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)

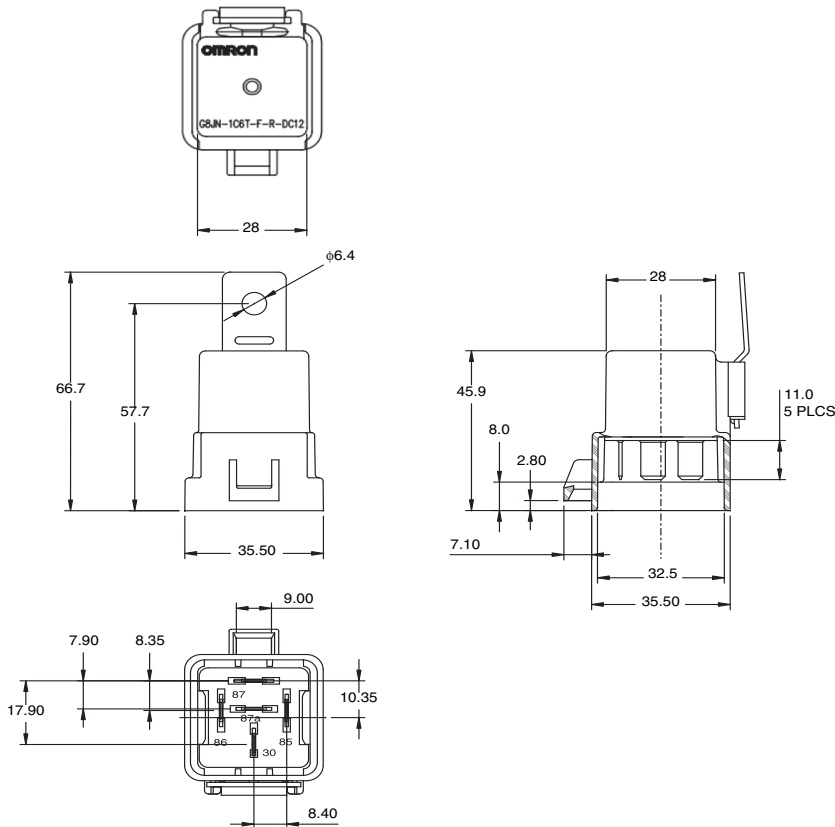


\* Tolerance unless otherwise specified  
Less than 1 mm: ±0.1 mm  
Less than 1 to 3 mm: ±0.2 mm  
3 mm or more: ±0.3 mm

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

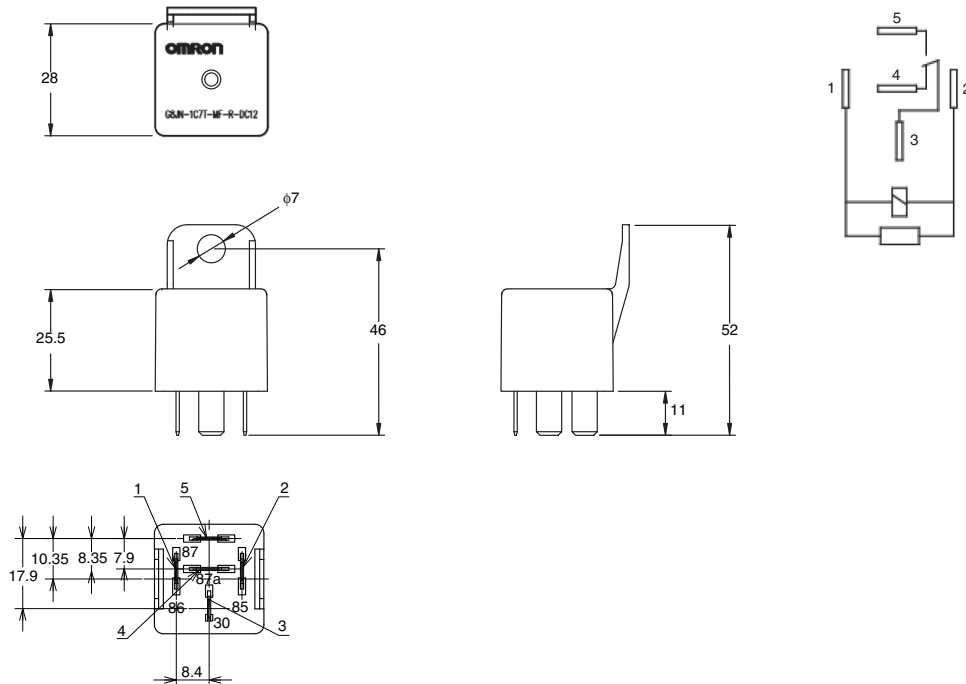
G8JN-1A6T-F-R  
G8JN-1C6T-F-R

Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)



G8JN-1A7T-MF-R  
G8JN-1C7T-MF-R

Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)



\* Tolerance unless otherwise specified  
Less than 1 mm:  $\pm 0.1$  mm  
Less than 1 to 3 mm:  $\pm 0.2$  mm  
3 mm or more:  $\pm 0.3$  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.