

Item Number: 501687

# HFV6-G

## AUTOMOTIVE RELAY

## Features

- 35A switching capability
- Ambient temp.: range up to 125°C
- 1 Form A & 1 Form C contact arrangement
- Plastic sealed and dust protected types available
- RoHS & ELV compliant

## Typical Applications

Heaters (seat, front/rear windows), Fan motors control, Fuel pump control, Wiper motors control, Headlight control, Air-conditioning, Lighting control, Electromagnet control, Start / Stop control

## CHARACTERISTICS

Contact arrangement	1A, 1C		5Hz to 17.3Hz 10mm DA
Voltage drop (initial)	NO:Typ.15mV,250mV max.(at 10A) NC:Typ.25mV,250mV max.(at 10A)	Vibration resistance <sup>4)</sup>	17.3Hz to 50Hz 58.9m/s <sup>2</sup> 50Hz to 100Hz 29.4m/s <sup>2</sup> 100Hz to 200Hz 19.4m/s <sup>2</sup>
Max. continuous current <sup>1)</sup>	NO: 35A(23°C)、30A(85°C)、18A(125°C) NC: 25A(23°C)、20A(85°C)、10A(125°C)	Shock resistance <sup>4)</sup>	196m/s <sup>2</sup> (20g)
Typ. switching current	Lamp:Make inrush peak current 150A Resistive:Brea ke 35A	Flammability <sup>5)</sup>	UL94-HB or better (meets FMVSS 302)
Max. switching voltage	16VDC	Termination	QC <sup>7)</sup>
Min. contact load	1A 12VDC	Construction	Plastic sealed, Dust protected
Electrical endurance	1×10 <sup>5</sup> OPS	Unit weight	Approx. 22g
Mechanical endurance	1 x 10 <sup>7</sup> OPS (300OPS/min)	Mechanical data	cover retention (pull & push): 200N min. terminal retention (pull & push): 100N min. terminal resistance to bending (front & side): 10N min. <sup>6)</sup>
Initial insulation resistance	100MΩ (at 500VDC)		
Dielectric strength <sup>2)</sup>	500VAC		
Operate time	Typ.: 5ms (at nomi. vol.) Max.: 10ms (at nomi. vol.)		
Release time <sup>3)</sup>	Typ.: 2ms Max.: 10ms		
Ambient temperature	-40°C to 125°C		
Storage temperature	-40°C to 155°C		

1) For NO contacts, measured when applying 100% rated votage on coil.  
2) 1min, leakage current less than 1mA.  
3) The value is measured when voltage drops suddenly from nominal voltage to 0 VDC and coil is not paralleled with suppression circuit.  
4) When energized, opening time of NO contacts shall not exceed 100μs, when non-energized, opening time of NC contacts shall not exceed 100μs,meantime, NO contacts shall not be closed.  
5) FMVSS: Federal Motor Vehicle Safety Standard.  
6) Test point is at 2mm away from teminal end, and after removing testing force, the terminal transfiguration shall not exceed 0.5mm.  
7) QC: Quick Connect

## CONTACT DATA <sup>4)</sup>

Load voltage	Load type		Load current A			On/Off ratio		Electrical endurance OPS	Contact material	Load wiring diagram <sup>3)</sup>	Ambient temp.
			1C		1A	On s	Off s				
			NO	NC							
Standard 13.5VDC	Resistive	Make	35	20	35	2	2	1×10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram 1	See Ambient Temp. Curve
		Break	35	20	35						
	Inductive	Make <sup>1)</sup>	80	---	80	2	2	1×10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram 2	
		Break	30	---	30						
	Lamp	Make	150 <sup>2)</sup>	---	150 <sup>2)</sup>	2	2	1×10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram 3	
		Break	30	---	30						