

Automotive Subminiature PCB Power Relay

HG4181



FEATURES

- Miniaturized structure, light weight
- Improved contact capacity
- Big gap type available for heavy motor load switching

TYPICAL AUTOMOTIVE APPLICATIONS

- Power antenna
- Power window
- Interval wiper
- Slide roof control
- Alarm/anti-theft system
- Automatic mirror adjustment
- Automatic head rest adjustment

CONTACT DATA

Form		1 Form A (H) / 1 Form C (Z)	1 Form U (SH)
Max. Switching Current	Make	60A	
	Break	20A	30A
Material		AgNi0.15; AgSnOInO	AgSnOInO
Initial Contact Resistance		100mΩ max. at 0.1A, 6VDC	
Max. Continuous Current		35A, 10 Min; 25A, 1 Hr.	2×30A, 2 Min
Max. Switching Voltage		16VDC	
Min. Load		0.1A, 12VDC	
Service Life	Mechanical	10 ⁷ ops.	
	Electrical	10 ⁶ ops.	

COIL DATA

Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω)±10%		Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC)
		Standard (0.6W)	Big Gap (0.8W)		
006	6	60	45	3.6	0.6
009	9	135	100	5.4	0.9
012	12	240	180	7.3	1.2
024	24	960	720	14.4	2.4

CHARACTERISTICS

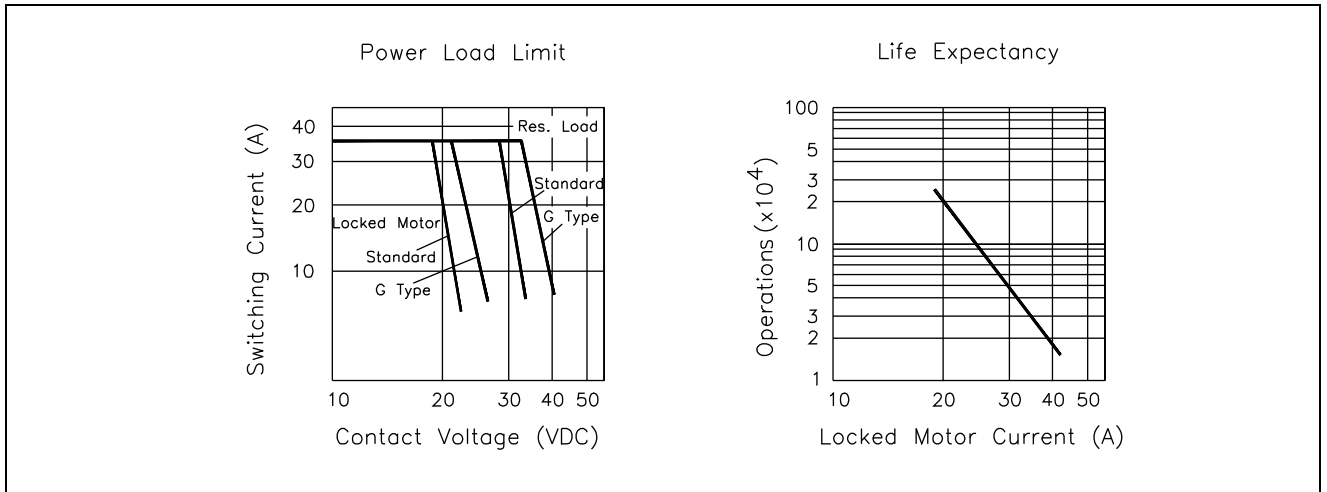
Operate Time	10 ms. typical
Release Time	5 ms. typical
Insulation Resistance	100 MΩ, at 500 VDC, 50%RH
Dielectric Strength	500 Vrms, 1 min.
Shock Resistance	10 g, 11ms.
Vibration Resistance	DA 1.5 mm, 10 - 55 Hz
Drop Resistance	1 M height drop on concrete
Power Consumption	Standard: 0.6W; Big Gap: 0.8W
Ambient Temperature	-30°C to 85°C operating; -40°C to 100°C storage
Weight	6 g, approx.

ORDERING DESIGNATION

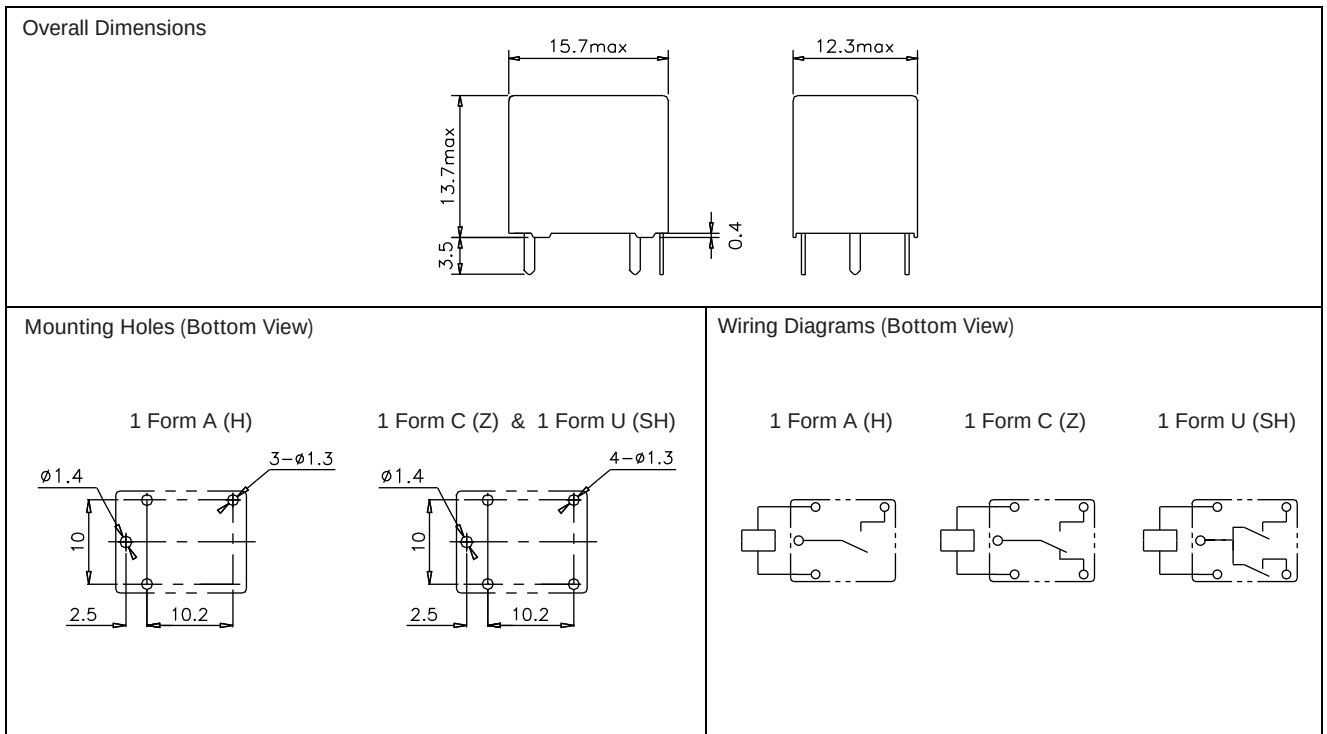
Example:	HG4181 /	012 -	H	1	C	G
Model						
Coil Voltage Code						
Contact Form						
H: 1 Form A; Z: 1 Form C; SH: 1 Form U						
Version						
1: Sealed; 2: Dust Cover						
Contact Material						
Nil: AgNi10; A: AgNi0.15; C: AgCdO; S: AgSnOInO						
Contact Gap						
Nil: Standard; G*: Big Gap						

Note: Big contact gap is not available for 1 Form U (SH)

REFERENCE CURVES



OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)



NOTES

1. All parameters, unless otherwise specified, are measured at ambient temperature 23°C.
2. Maximum make current refers to inrush current of motor load.
3. Electrical life obtained at motor load of locked rotor at 20A, 14VDC with operating frequency of 6 ops/min.
4. Custom-made services available with operational quantity. Please let us know your special requirements.
5. Specifications subject to change without prior notice.

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