Automotive Subminiature PCB Power Relay — HG4117


FEATURES

- 15A continuous current capacity
- Six different contact forms
- Available with open, dust cover and sealed version
- Automotive-oriented design

TYPICAL AUTOMOTIVE APPLICATIONS

- Flasher
- Interval wiper control
- Fuel pump control
- Anti-theft alarm system
- Automatic mirror adjustment
- Air conditioning
- Door lock
- ABS
- Belt tension adjustment
- Power window

CONTACT DATA

Form		1 Form A (H)	1 Form B (D)	1 Form C (Z)		1 Form U (SH)	1 Form V (SD)	1 Form W (SZ)	
				NO	NC			NO	NC
Max. Switching Current	Make	60A (S:100A)	12A	60A (S:100A)	12A	2 x 40A (S:70A)	2 x 8A	2 x 30A (S:50A)	2 x 5A
	Break	20A	10A	20A	10A	2 x 20A	2 x 7A	2 x 15A	2 x 5A
Material		AgNi0.15, AgSnOInO							
Initial Contact Resistance		100 mΩ max. at 0.1A, 6VDC							
Max. Switching Voltage		See curve, current dependent							
Max. Continuous Current		15A	10A	15A	10A	2 x 10A	2 x 7A	2 x 7A	2 x 5A
Min. Load		0.5A, 5VDC							
Service Life	Mechanical	10^7 ops.							
	Electrical	2 x 10^5 ops, see Note 4							

COIL DATA

Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω) ±10%	Must Operate Voltage max. (VDC)		Allowable Voltage (VDC)	Must Release Voltage min. (VDC)	
			A, B, C, U, V	W		B, V	A, C, U, W
006	6	28	3.75	4.5	8	0.35	0.7
012	12	130	7.50	9.0	16	0.70	1.4
024	24	520	15.00	18.0	31	1.40	2.8

CHARACTERISTICS

Operate Time	3 ms. typical
Release Time	1.5 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 1.5mm, 20 - 200 Hz, functional
Drop Resistance	1 M height drop on concrete in final enclosure
Power Consumption	1.1 W, approx.
Ambient Temperature	-40°C to 85°C operating; -40°C to 155°C storage
Weight	Open: 8 g; Covered: 12 g, approx.

ORDERING DESIGNATION

Example:	HG4117 /	012 -	Z	1	A

Model

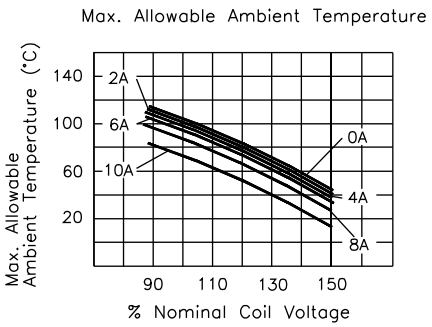
Coil Voltage code

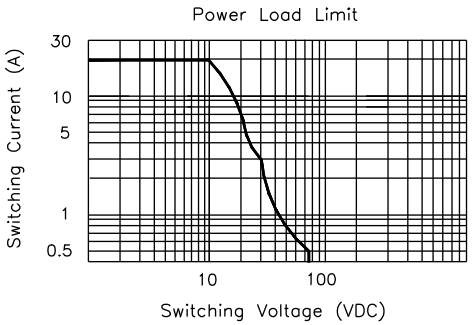
Contact Form
H: 1 Form A ; SH: 1 Form U
D: 1 Form B ; SD: 1 Form V
Z: 1 Form C ; SZ: 1 Form W

Version
Nil: Open; 1: Sealed; 2: Dust Cover

Contact Material
Nil: AgNi10; A: AgNi0.15; C: AgCdO; S: AgSnOInO

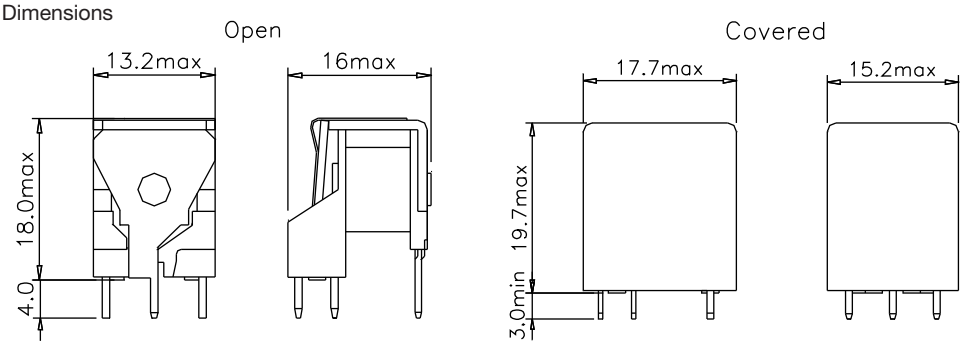
REFERENCE CURVES



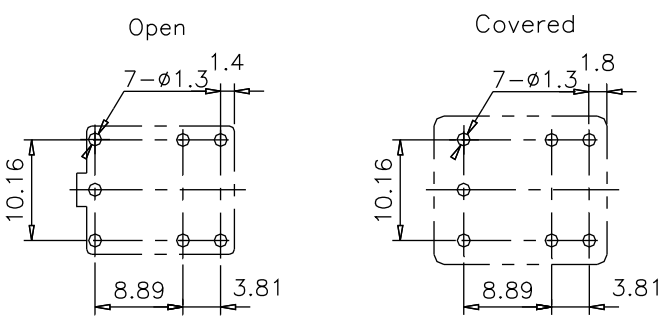


OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)

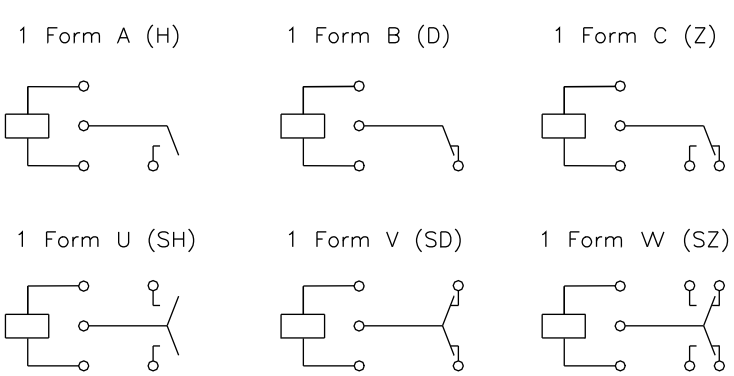
Overall Dimensions



Mounting Holes (Bottom View)



Wiring Diagrams (Bottom View)



NOTES

1. All parameters, unless otherwise specified, are measured at ambient temperature 23ºC.
2. Maximum make current refers to inrush current of lamp load.
3. At ambient temperature of 85ºC, maximum allowable voltage should be reduced to 72%.
4. Electrical life obtained at resistive or inductive load at 10A, 15VDC for A, B, C, U, V forms, 7A, 15VDC for W form, with suitable arc-suppression circuit attached with operating frequency of 1 ops/sec.
5. Custom-made services available with operational quantity. Please let us know your special requirements.
6. Specifications subject to change without prior notice.

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