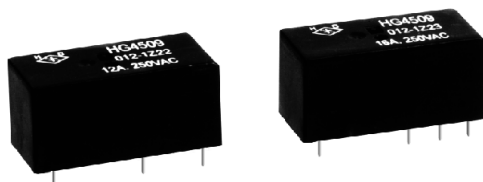


## Low Profile Miniature PCB Power Relay

# HG4509



### FEATURES

- 8A, 12A & 16 A contact capacity
- 1 Form A to 2 Form C contact forms available
- 5 KV dielectric strength between coil and contacts
- 10 mm creepage distance between coil and contacts
- Low profile design, 15.7 mm in height
- Sealed and dust cover version available
- UL, CUR approved

### TYPICAL APPLICATIONS

- Home appliances
- Office machines
- Vending machines
- Air conditioners, refrigerators

### CONTACT RATING

Form	1 Form A (H) 1 Form B (D) 1 Form C (Z)	2 Form A (2H) 2 Form B (2D) 2 Form C (2Z)
Rated Load	12A/16A	8A
Max. Switching Current	12A/16A	8A
Max. Switching Voltage	440VAC/125VDC	
Max. Switching Power	3000VA/4000VA	2000VA

### CONTACT DATA

Material	AgCdO	
Initial Contact Resistance	50 mΩ max. at 1A, 6VDC	
Service Life	Mechanical	10 <sup>7</sup> ops.
	Electrical	10 <sup>5</sup> ops.

### COIL DATA

Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω) ±10% Power Consumption		Must Operate Voltage max. (VDC)	Must Release Voltage min. (VDC)
005	5	62	0.4W	3.5	0.5
006	6	90		4.2	0.6
012	12	360		8.4	1.2
024	24	1440		16.8	2.4
048	48	5760*		33.6	4.8
060	60	7500*		42.0	6.0
110	110	25200*		77.0	11.0

### CHARACTERISTICS

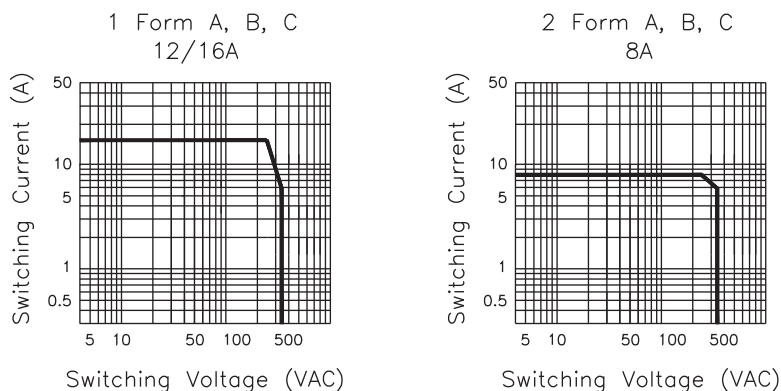
Operate Time	7 ms.
Release Time	3 ms.
Insulation Resistance	1000 MΩ, at 500 VDC, 50%RH
Dielectric Strength	5000 Vrms, 1 min. between coil and contacts 1000 Vrms, 1 min. between open contacts 2500 Vrms, 1 min. between poles
Shock Resistance	10 g, 11ms. functional; 100 g, destructive
Vibration Resistance	5 g / 10 g, 30 - 150 Hz
Ambient Temperature	-40°C to 70°C
Weight	13.5 g, approx.

### ORDERING DESIGNATION

Example:	HG4509 /	012 -	1Z	1	1
Model					
Coil Voltage Code					
Contact Form					
1H: 1 Form A; 2H: 2 Form A					
1D: 1 Form B; 2D: 2 Form B					
1Z: 1 Form C; 2Z: 2 Form C					
Version					
1: Sealed; 2: Dust Cover					
Structure Version					
1: 1 pole, 12A; 3.5 mm					
2: 1 pole, 12A; 5 mm					
3: 1 pole, 16A; 5 mm					
4: 2 pole, 8A; 5 mm					

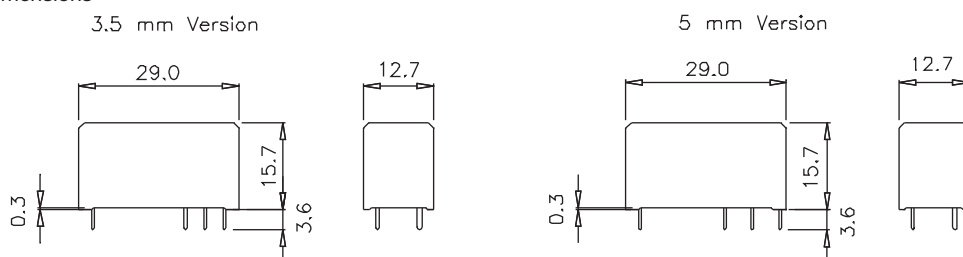
## REFERENCE CURVES

### Power Load Limit

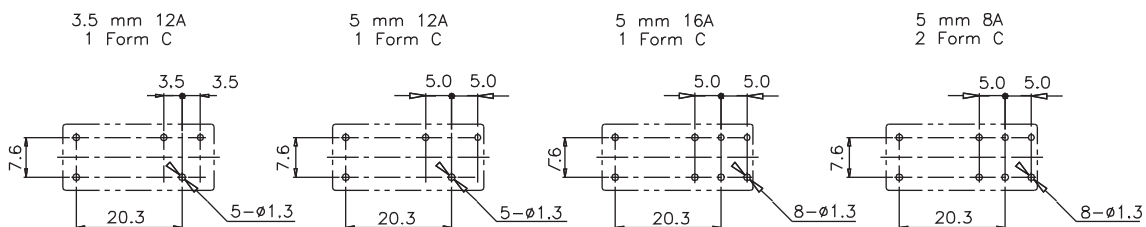


## OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)

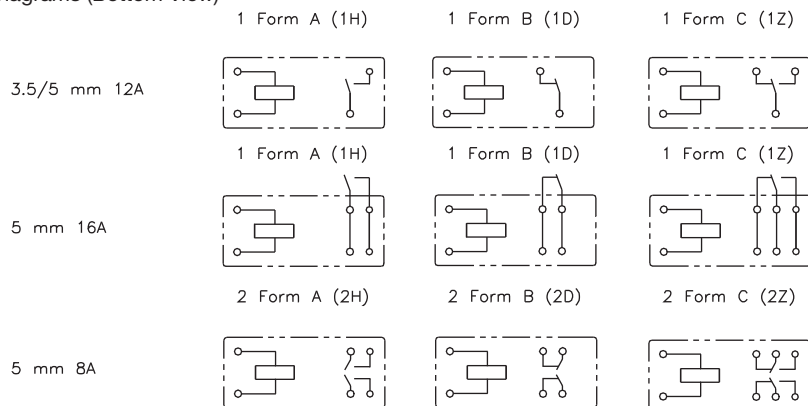
### Overall Dimensions



### Mounting Holes (Bottom View)



### Wiring Diagrams (Bottom View)



## NOTES

1. All parameters, unless otherwise specified, are measured at ambient temperature 23°C.
2. Coil resistance with \* mark is  $\pm 15\%$ .
3. Custom-made services available with operational quantity. Please let us know your special requirements.
4. Specifications subject to change without prior notice.

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