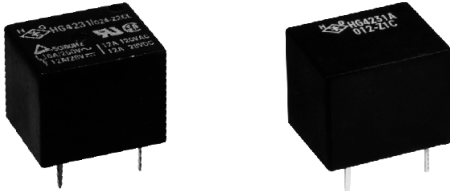


## Subminiature PCB Power Relay

## Automotive Subminiature PCB Power Relay

# HG4231 HG4231A



### FEATURES

- Subminiature type, compact design
- Heavy duty, contact capacity up to 12A, 120VAC and 20A, 16VDC
- Low cost PCB relay

### TYPICAL APPLICATIONS

- Office machine
- Home appliances
- Audio equipment
- Automotive control

### CONTACT RATING

Type	HG4231	HG4231A
Resistive	12A, 120VAC 12A, 28VDC 7A, 240VAC	20A, 16VDC

### UL/CSA/TUV RATING

Type	HG4231
Resistive	12A, 120VAC (UL/CSA) 12A, 28VAC (UL/CSA/TUV) 6A, 250VAC (TUV)
TV	5A, 120VAC(NO) (UL/CSA)

### CONTACT DATA

Material	AgCdO	
Initial Contact Resistance	100 mΩ max. at 0.1A, 6VDC	
Service Life	Mechanical	10 <sup>7</sup> ops.
	Electrical	10 <sup>5</sup> ops.

### COIL DATA

Type	Coil Voltage Code	Nominal Voltage (VDC)	Resistance (Ω) ± 10%		Must Operate Voltage max. (VDC)	Must Release Voltage min. (VDC)		
			Power Consumption					
			Standard	Sensitive				
HG4231	003	3	20	0.45W	0.36W	2.25	0.3	
	006	6	80			25	4.5	0.6
	009	9	180			100	6.75	0.9
	012	12	320			225	9.0	1.2
	024	24	1280			400	18.0	2.4
	048	48	4500			1600	36.0	4.8
HG4231A	006	6	45	0.8W		3.2	0.6	
	012	12	180			6.3	1.2	
	024	24	720			12.6	2.4	

### CHARACTERISTICS

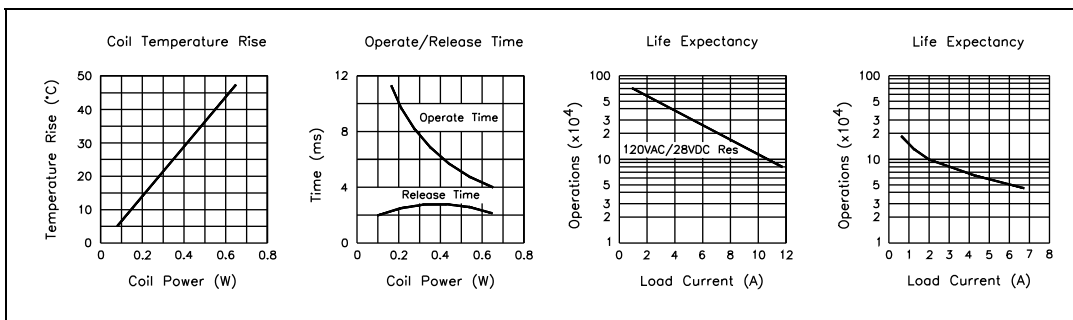
Operate Time	10 ms. typical
Release Time	5 ms. typical
Insulation Resistance	100 MΩ, at 500 VDC, 50%RH
Dielectric Strength	1000 Vrms, 1 min. between coil and contacts 750 Vrms, 1 min. between open contacts
Shock Resistance	10 g, 11ms. functional; 100g, destructive
Vibration Resistance	DA 1.5mm, 10 - 55 Hz, functional
Power Consumption	HG4231: Standard 0.45W; Sensitive: 0.36W HG4231A: 0.8W
Ambient Temperature	HG4231: -40°C to 70°C; HG4231A: -40°C to 85°C
Weight	10 g, approx.

# HG4231 HG4231A

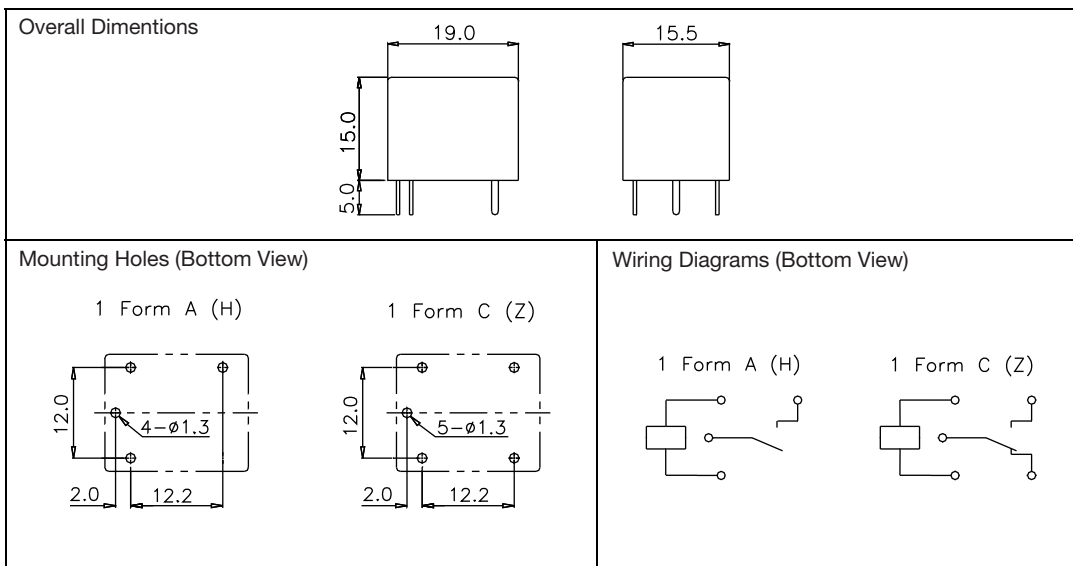
## ORDERING DESIGNATION

Example:	HG4231	A /	012-	Z	1	C	L
Model							
Type	Nil: General Purpose A: Automotive						
Coil Voltage Code							
Contact Form	H: 1 Form A; D: 1 Form B; Z: 1 Form C						
Version	1: Sealed; 2: Flux Free; 3: Dust Cover						
Contact Material	Nil: AgNi10; A: AgNi0.15; C: AgCdO; S: AgSnOInO						
General Purpose Type Coil Sensitivity	Nil: Standard 0.45W; L: Sensitive 0.36W						

## 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. Custom-made services available with operational quantity. Please let us know your special requirements.
3. Specifications subject to change without prior notice.

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