

# HF9533

## 1/5 CUBIC INCH 1 FORM C HERMETICALLY SEALED ELECTROMAGNETIC RELAY WITH COIL TRANSIENT SUPPRESSION



### Features

- Force balanced type
- With coil transient suppression
- 15A contacts switching capability
- Failure rate can be level L
- High ambient applicability
- All metal welded construction
- Hermetically welded and marked by laser

Conform to GJB2888-97 (Equivalent to MIL-PRF-83536)

### AMBIENT ADAPTABILITY

Ambient grade	I	II	III
Ambient temperature	-55 °C to 85 °C	-55 °C to 85 °C	-65 °C to 125 °C
Humidity	98%, 40 °C		
Low air pressure	58.53 kPa	4.39 kPa	4.39 kPa
Sine vibration	Frequency	10 Hz to 1000 Hz	10 Hz to 3000 Hz
	Acceleration	147 m/s <sup>2</sup>	196 m/s <sup>2</sup>
Shock resistance	490 m/s <sup>2</sup>	980 m/s <sup>2</sup>	1960 m/s <sup>2</sup>
Random vibration	—	20 (m/s <sup>2</sup> ) <sup>2</sup> /Hz	40 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Steady-state acceleration	147 m/s <sup>2</sup>	294 m/s <sup>2</sup>	490 m/s <sup>2</sup>

### CONTACT DATA

Ambient grade	I	II	III
Arrangement	1 C		
Contact resistance	Initial max. 0.01Ω		
or voltage drop	After life max. 0.125V		

### Contact and life ratings

Type	Contact load		Electrical life min.
	28Vd.c.	115Va.c. 400Hz Single phase	
Resistive	15A	15A	1 x 10 <sup>4</sup> OPS
Inductive	6A	—	1 x 10 <sup>4</sup> OPS
Inductive	—	8A	2 x 10 <sup>4</sup> OPS
Motor	4A	—	5 x 10 <sup>4</sup> OPS
Lamp load	2A	—	5 x 10 <sup>4</sup> OPS



HONGFA HERMETICALLY SEALED RELAY

## SPECIFICATION

Ambient grade		I	II	III
Insulation resistance min.	Initial	100 MΩ (@ 500 Vd.c.)	100 MΩ (@ 500 Vd.c.)	100 MΩ (@ 500 Vd.c.)
	After life or after testing	50 MΩ (@ 500 Vd.c.)	50 MΩ (@ 500 Vd.c.)	50 MΩ (@ 500 Vd.c.)
Dielectric strength min. (Normal condition)	Between coil & cover(initial)	1000 Vr.m.s.	1000 Vr.m.s.	1000 Vr.m.s.
	Between coil & cover(after life testing)	750 Vr.m.s.	750 Vr.m.s.	750 Vr.m.s.
	Between other insulation parts(initial)	1250 Vr.m.s.	1250 Vr.m.s.	1250 Vr.m.s.
	Between other insulation parts(after life testing)	1000 Vr.m.s.	1000 Vr.m.s.	1000 Vr.m.s.
Dielectric strength min.(Low air pressure condition)		250 Vr.m.s.	250 Vr.m.s.	250 Vr.m.s.
Leakage rate max.		1 Pa·cm <sup>3</sup> /s	1 x 10 <sup>-1</sup> Pa·cm <sup>3</sup> /s	1 x 10 <sup>-3</sup> Pa·cm <sup>3</sup> /s
Operate time max.		7 ms		
Release time max.		7 ms		
Mounting style		See the mounting dimension		
Terminals		See the terminal styles		
Work position		Random		
Weight max.		20 g		

## COIL DATA

Norminal coil power	Approx.2W
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### Coil Version

Order Number	Coil voltage		at 25 °C				-65°C to 125°C			Pick-up voltage max.	
	Nominal voltage	Value max.	Coil resistance (Ω) min.	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.	Pick-up voltage max.	Hold voltage max.	Drop-out voltage min.	High temp. test	Continuous electric test
006	6	7.3	18	3.3	1.6	0.40	4.5	2.3	0.25	5.0	5.70
012	12	14.5	85	6.5	3.3	0.75	9.0	4.5	0.50	9.9	11.25
028	28	29.0	440	15.5	5.5	2.30	20.0	7.0	1.50	21.0	25.0

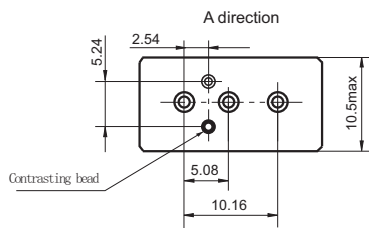
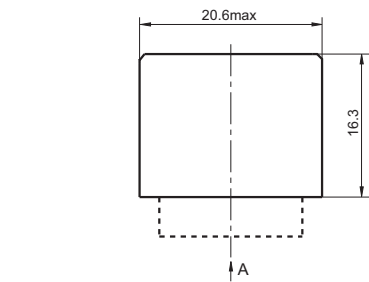
Notes: We can offer many kinds of coil voltage under the requirement of users.

## ORDERING INFORMATION

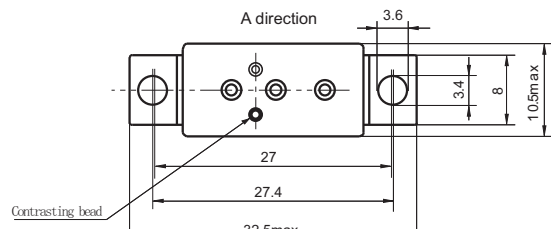
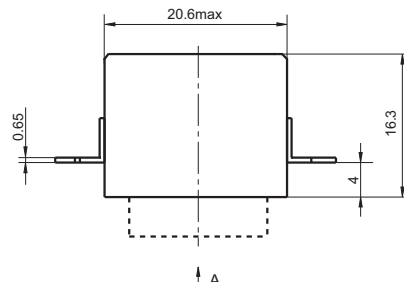
Type	HF9533	-012	L	-0	1	- II
Order Number	006、012、028					
Failure Rate	L: Failure rate level L (level III products available) <sup>1)</sup> Nil: Without failure rate requirement(level I ,II ,IIIproducts available)					
Mounting Style	0, 2, 3 (See the mounting dimension)					
Terminals Style	1, 4 (See " Terminal styles " below)					
Ambient Grade	I : level I II : level II III: level III					

Notes: 1) For the failure rate of L ,the letter "III" of ambient grade level will not appear on relay cover.

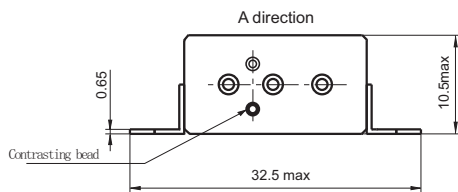
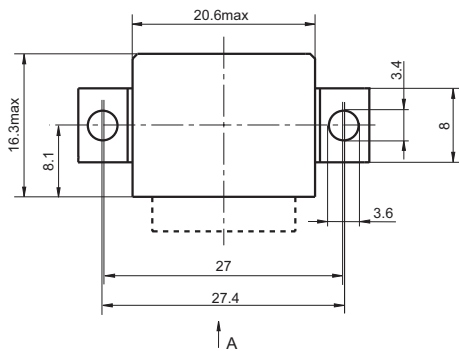
**Outline Dimension**



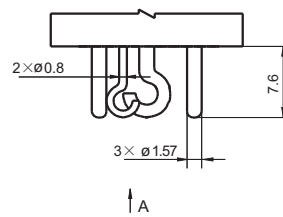
**Mouting style 0**



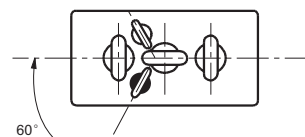
**Mouting style 2**



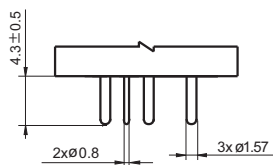
**Mouting style 3**



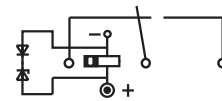
A direction



**Terminal style 4  
(Solder hook)**



**Terminal style 1  
(Solder pin)**



**Wiring Diagram  
(Bottom View)**

**Disclaimer**

This datasheet is for the customers' reference. All the specifications are subject to change without notice.

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