

CHAA4 Series 35A/40A Automotive Relay

FEATURES

- 35A/40A switching capability
- 1Form A and 1 Form C contact arrangement
- Parallel resistor or diode available
- Dust protected type and wash tight type available
- Comply with RoHS and ELV instruction



APPLICATION

ABS Control System, Fan
 Door Control System
 Door Lock, Fuel Pump
 Heated Front, Back Window Glass

COIL PARAMETER

Coil voltage	12VDC/24VDC	
Coil power	CHAA4-D	1.2W
	CHAA4-D1	1.2W
	CHAA4-D2	1.2W
	CHAA4-R	1.4W

COIL DATA @23°C

CHAA4-D/CHAA4-D1/CHAA4-D2						
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%	Parallel Resistance (Ω ±5%)	Equivalent Resistance (Ω)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	100	120	—	—	7.2	1.2
24	50	480	—	—	14.4	2.4

CHAA4-R						
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%	Parallel Resistance (Ω ±5%)	Equivalent Resistance (Ω)	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
12	118	120	680	102	7.2	1.2
24	59	480	2700	408	14.4	2.4

CONTACT DATA

Contact arrangement	1 Form A, 1 Form C
Contact material	Silver Alloy
Initial contact resistance	NO: 15mV Type, 250mV Max (at 10A)
	NC: 25mV Type, 250mV Max (at 10A)
Max. switching voltage	14VDC
Max. switching current	40A
Max. switching power	560W
Contact rating (Resistive Load)	NO: 35A 14VDC
	NO: 40A 14VDC
	NC: 20A 14VDC
Mechanical endurance	10,000,000 ops Min.(no load)
Electrical endurance	100,000 ops Min.(rated load)
Minimum load (reference value)	1A@6VDC

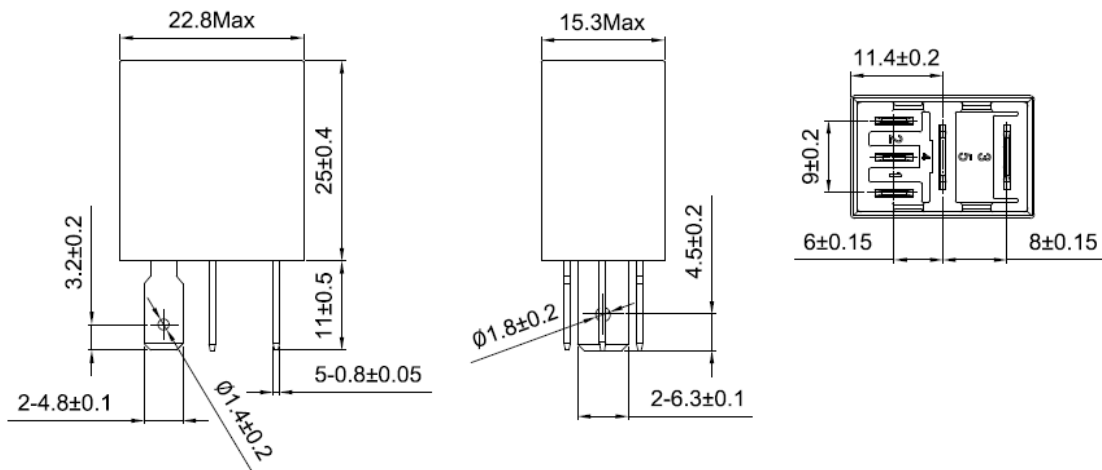
CHARACTERISTICS

Operate voltage	60% of nominal voltage or less	
Release voltage	10% of nominal voltage or more	
Operate time(At nominal voltage)	10ms max.	
Release time(At nominal voltage)	10ms max.	
Insulation resistance	100MΩ min. (at 500 VDC)	
Dielectric strength	Between coil and contacts	≥500 VAC, 50/60Hz (1 min)
	Between open contacts	≥500 VAC, 50/60Hz (1 min)
Vibration resistance	Destruction	60Hz~ 500Hz, 49m/s ² (5G)
	Malfunction	10Hz~ 60Hz, 0.35mm double amplitude
Shock resistance	Destruction	1,000m/S ² (100G)
	Malfunction	200m/S ² (20G)
Ambient temperature	-40~ +125°C (without icing or condensation)	
Ambient humidity	20%~85% RH	
Terminal	QC terminals	
Enclosure (94V-0 Flammability Ratings)	V: Vented(Dust-protected, RTI)	
	S: Sealed(Wash-tight, RTIII)	
Weight	Approx. 19g	

ORDERING

	CHAA4	-V	-1	12	D	A	2	,000
1.Product Family								
2.Enclosure	V: Vented(Dust-protected, RTI) S: Sealed(Wash-tight, RTIII)							
3.Number of Poles	1: 1 pole							
4.Rated Coil Voltage	12,24VDC							
5.Parallel component	D: Without parallel component R: With resistor D1: With parallel diode(Anode on 1#) D2: With parallel diode(Anode on 2#)							
6.Contact Arrangement	A: Form A(SPST) C: Form C(SPDT)							
7.Conact Material	2: AgSnO2							
9.Additional numbers and /or letters	000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements							

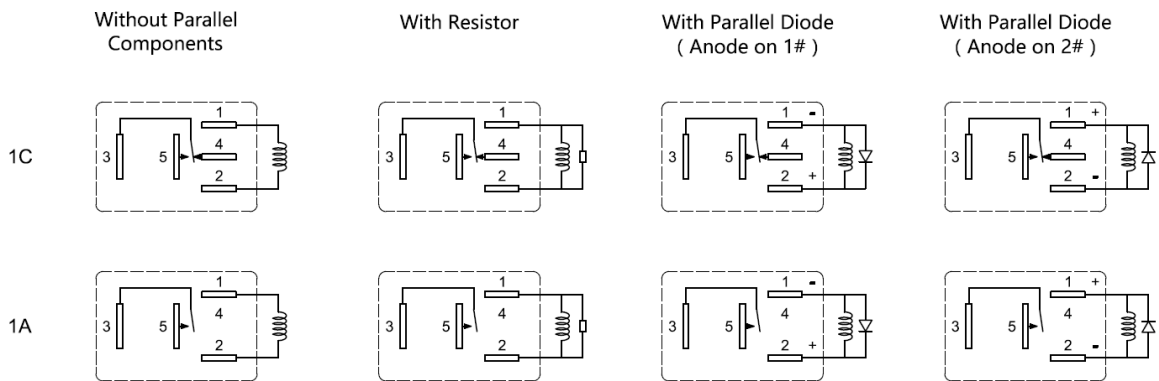
OUTLINE DIMENSION



Remarks:

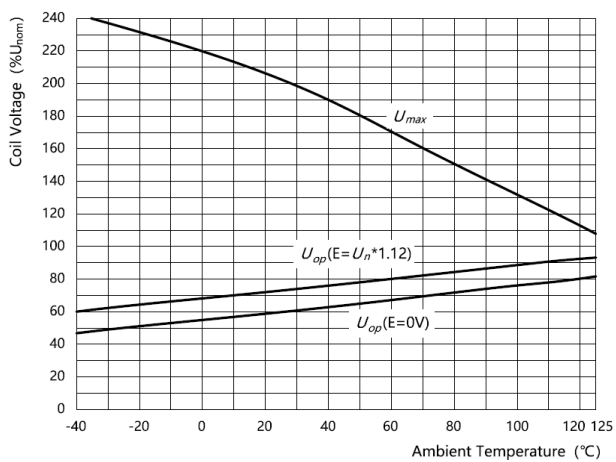
- The reference tolerance in outline dimension:
 - outline dimension ≤ 1 mm, reference tolerance is ± 0.2 mm;
 - outline dimension > 1 mm and ≤ 5 mm, reference tolerance is ± 0.3 mm;
 - outline dimension > 5 mm, reference tolerance is ± 0.5 mm.
- The reference tolerance for PC Board layout is ± 0.1 mm.

WIRING DIAGRAMS (BOTTOM VIEWS)

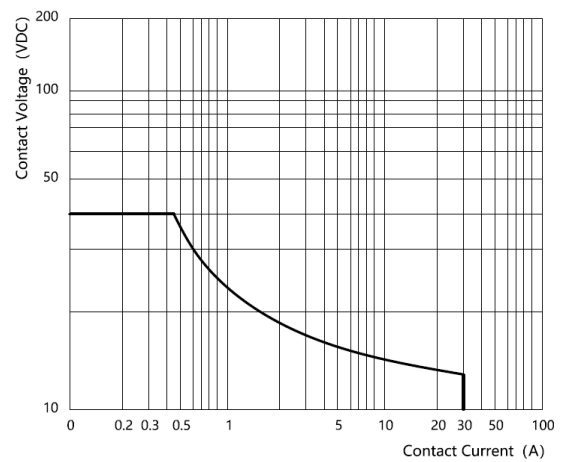


Reference Data

Coil Continuous Voltage Range



Maximum Load Range



Disclaimer:

The specification is for reference only, if you need more detail information, please contact Churod. We could not evaluate all the performance and all parameters for every possible application. And the user should be in a right position to choose the suitable product for their own application. If there is any new need, please contact Churod for the technical service.

[Http://www.churod.com](http://www.churod.com)

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