



»» Features

- ☐ 8A/12A miniature PCB Power Relay.
- ☐ Large contact gap : 2mm/1.5mm.
- ☐ High dielectric strength.
- ☐ Epoxy seal type and sealed flux free are both available.
- ☐ Design for UPS and power supply application.
- ☐ Complies with RoHS-Directive 2011/65/EU.

»» Type List

◆ Standard Type

Terminal style	Contact form	Contact gap	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	2A (DPNO)	1.5mm	894-2AC1-F-C	894-2AC1-F-V	894-2AC1-F-S
		2.0mm	894-2AC2-F-C	894-2AC2-F-V	894-2AC2-F-S
		1.5mm	894-2AH1-F-C	894-2AH1-F-V	894-2AH1-F-S
		2.0mm	894-2AH2-F-C	894-2AH2-F-V	894-2AH2-F-S
	2C (DPDT)	1.5mm	894-2CC1-F-C	894-2CC1-F-V	894-2CC1-F-S
		2.0mm	894-2CC2-F-C	894-2CC2-F-V	894-2CC2-F-S
		1.5mm	894-2CH1-F-C	894-2CH1-F-V	894-2CH1-F-S
		2.0mm	894-2CH2-F-C	894-2CH2-F-V	894-2CH2-F-S

◆ High Power Type

PCB terminal	2A (DPNO)	1.5mm	894H-2AC1-F-C	894H-2AC1-F-V	894H-2AC1-F-S
		2.0mm	894H-2AC2-F-C	894H-2AC2-F-V	894H-2AC2-F-S
		1.5mm	894H-2AH1-F-C	894H-2AH1-F-V	894H-2AH1-F-S
		2.0mm	894H-2AH2-F-C	894H-2AH2-F-V	894H-2AH2-F-S
	2C (DPDT)	1.5mm	894H-2CC1-F-C	894H-2CC1-F-V	894H-2CC1-F-S
		2.0mm	894H-2CC2-F-C	894H-2CC2-F-V	894H-2CC2-F-S
		1.5mm	894H-2CH1-F-C	894H-2CH1-F-V	894H-2CH1-F-S
		2.0mm	894H-2CH2-F-C	894H-2CH2-F-V	894H-2CH2-F-S

◆ High Sensitivity Type

Terminal style	Contact form	Designation (provided with)		
		Flux tight	Sealed type	Sealed type washable
PCB terminal	2A (DPNO)	894N-2AC-F-C	894N-2AC-F-V	894N-2AC-F-S
		894N-2AH-F-C	894N-2AH-F-V	894N-2AH-F-S
	2C (DPDT)	894N-2CC-F-C	894N-2CC-F-V	894N-2CC-F-S
		894N-2CH-F-C	894N-2CH-F-V	894N-2CH-F-S

Ordering Information

894 ☐ ☐ - 2C C ☐ - ☐ - C ☐
1 2 3 4 5 6 7 8 9

- | | | | |
|----------|---|-----------------------------|---|
| 1. 894 | -- Basic series designation | 6. Blank | -- Standard type |
| 2. Blank | -- Standard type | 1 | -- Contact gap $\geq 1.5\text{mm}$ |
| H | -- High power type | 2 | -- Contact gap $\geq 2.0\text{mm}$ |
| 3. Blank | -- Standard type (0.8 W; 1.4 W for 2CX2 only) | 7. Blank | -- Standard type |
| N | -- High sensitivity type (0.53 W) | F | -- Class F |
| 4. 2A | -- Double pole normally open | 8. C | -- Flux tight |
| 2B | -- Double pole normally closed | V | -- Sealed type |
| 2C | -- Double pole double throw | S | -- Sealed type washable |
| 5. C | -- Contact material AgNi | 9. ☐ | -- Coil voltage (please refer to the coil rating data for the availability) |
| H | -- Contact material AgSnO | | |

Contact Rating

Type	894	894H
Resistive load	8A 240VAC	NO : 12A 240VAC, NC : 10A 240VAC
Max. switching current	8A	NO / NC : 12A / 10A
Max. switching voltage	277VAC	277VAC
Max. switching capacity	1920VA	NO / NC : 2880VA / 2400VA

Coil Rating (DC)

◆ Standard Type

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	265	11.3	150 % of rated voltage	# of rated voltage (See note)	5 % of rated voltage	approx. 0.8W
5	161	31				
6	133	45				
9	89.1	101				
12	66.6	180				
18	44.4	405				
24	32.4	740				
48	16.7	2,880				
60	13.3	4,500				
110	7.3	15,125				

Notes : # = 75% Contact form 2A / Contact gap 1.5mm only
= 85% Contact form 2C / Contact gap 1.5mm only
= 85% Contact form 2A / Contact gap 2.0mm only

◆ Standard Type (for “-2CX2” only)

Rated voltage (V)	Rated current ±10% at 23°C (mA)	Coil resistance ±10% at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	468	6.4	130 % of rated voltage	85 % of rated voltage	5 % of rated voltage	approx. 1.4W
5	277	18				
6	230	26				
9	155	58				
12	117	102				
18	78	230				
24	58	410				
48	29	1650				
60	23	2570				
110	13	8640				

◆ High Sensitivity Type

Rated voltage (V)	Rated current ±10% at 23°C (mA)	Coil resistance ±10% at 23°C (Ω)	Max. continuous voltage at 70°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	175	17.1	150 % of rated voltage	75 % of rated voltage	5 % of rated voltage	approx. 0.53W
5	107	46.7				
6	87	68.7				
9	59	153.2				
12	44	272				
18	30	610				
24	22	1,081				
48	11	4,350				
60	8.8	6,790				
110	4.8	22,800				

»» Specification

Contact material	AgNi / AgSnO alloy
Contact resistance ⁽¹⁾	100mΩ Max. (at 1A/6VDC by 4-wire resistance measurement)
Operate time ⁽¹⁾	20ms Max.
Release time ⁽¹⁾	15ms Max.

Vibration resistance	Operating extremes	10~55Hz , amplitude 1.5 mm
	Damage limits	10~55Hz , amplitude 1.5 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	3,000,000 ops. (frequency 18,000 ops./hr)
		300,000 ops. (for contact gap 2mm type) (frequency 9,000 ops./hr)
	Electrical	30,000 ops. (frequency 360 ops./hr)
Operating ambient temperature	-40~+70°C (no freezing)	
Weight	Approx. 17 g	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Unless otherwise specified, all tests are under room temperature and humidity.

(3) Consider the heat of PCB is necessary, please check the actual condition of PCB.

(4) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.

(5) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.

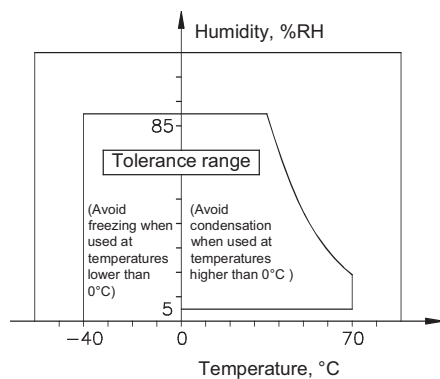
(6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

(7) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

(8) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

(9) Usage, transport and storage conditions

- 1. Temperature: -40~+70°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



(10) Please contact Song Chuan for the detailed information.

»» Insulation Data

Insulation resistance ⁽¹⁾	1000MΩ Min. (DC 500V)
Dielectric strength ⁽¹⁾	Between open contact : AC 2500V , 50/60Hz 1 min. AC 1000V , 50/60Hz 1 min. (for 894N/894HN)
	Between contact circuits : AC 2500V , 50/60Hz 1 min.
	Between contact and coil : AC 5000V , 50/60Hz 1 min.
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Reinforce, $\geq 6.0\text{mm}$ / $\geq 8.0\text{mm}$
	Between open contact : Functional Basic, $\geq 1.5\text{mm}$ / $\geq 2.5\text{mm}$ (for Large contact gap)
Rated insulation voltage	250V
Rated impulse withstand voltage	4000V
Pollution degree	3
Rated voltage	230 / 400V
Overvoltage category	II

Note : (1) Initial value.

»» Safety Approval

Certified	TUV	CSA / CUS	UL / CUL	VDE
File No.	R 50008226	1223057	E88991	40007827

»» Safety Approval Rating

◆UL/CUL、CSA/CUS

894		894H	
C、CA	H、HA	C、CA	H、HA
8A 277VAC 1/4HP 125VAC 1/2HP 250VAC	8A 277VAC 1/4HP 125VAC 1/2HP 250VAC TV-3 (NO)	12A 277VAC 1/3HP 125VAC	12A 277VAC 1/3HP 125VAC 3/4HP 250VAC (NO) TV-5(NO)

◆VDE

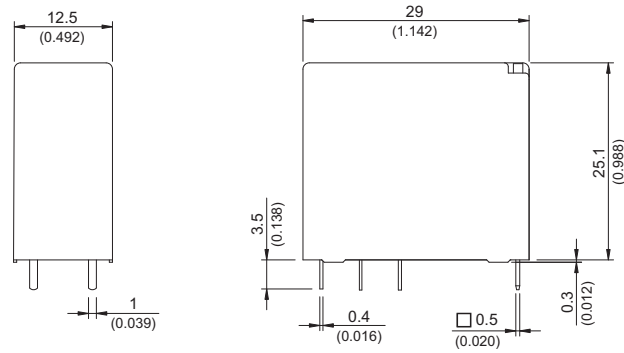
894	894N	894H	894HN
8A 250VAC T55	8A 250VAC T70	10A 250VAC T55	10A 250VAC T70

Note : Please contact Song Chuan for the rating details of contact gap 2.0mm.

◆TUV

894	894H
8A 277VAC	12A 250VAC

Outline Dimensions



TOLERANCE:
 LESS THAN: 1(0.039) $\pm 0.1(0.004)$
 5(0.197) $\pm 0.3(0.012)$
 20(0.787) $\pm 0.5(0.020)$
 MORE THAN: 20(0.787) $\pm 1(0.039)$

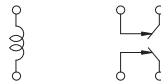
Wiring Diagram

BOTTOM VIEW

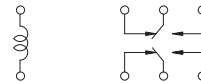
2A



2B



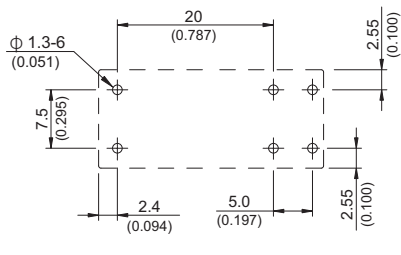
2C



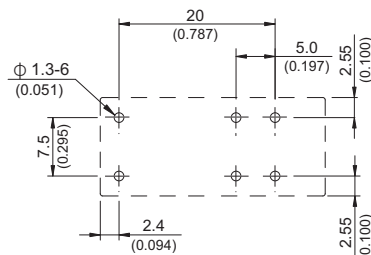
PC Board Layout

BOTTOM VIEW

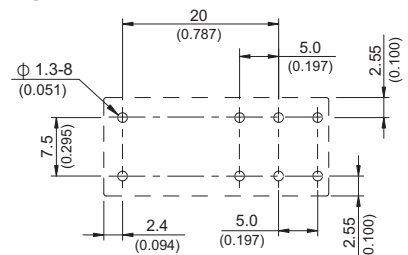
2A



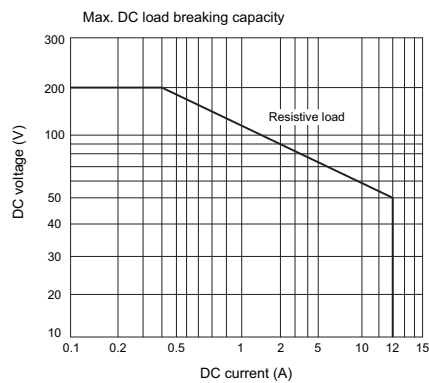
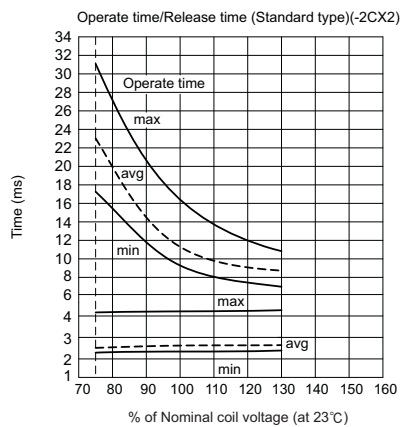
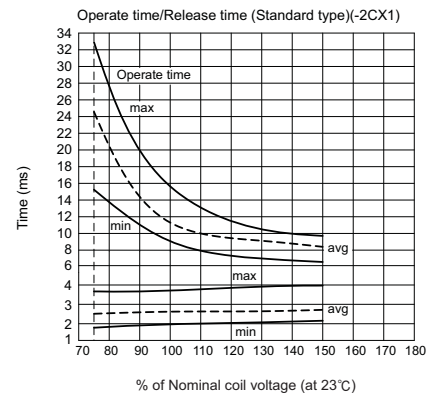
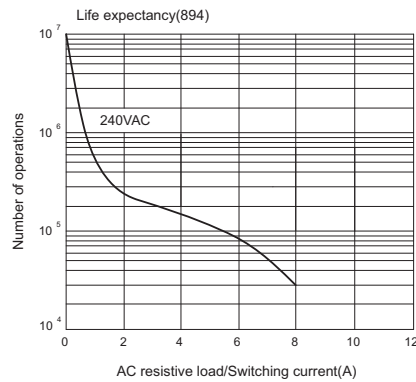
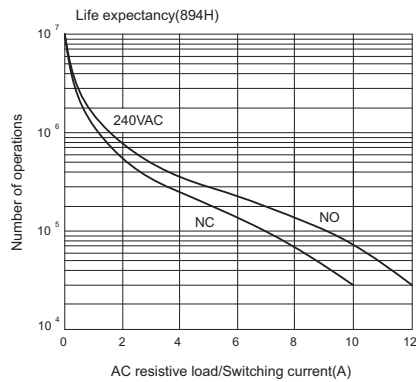
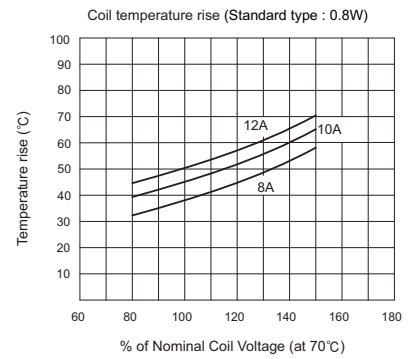
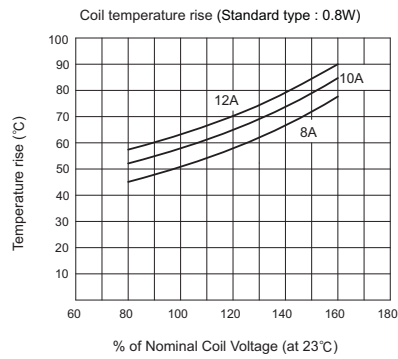
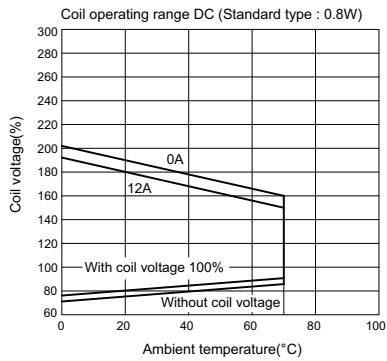
2B



2C



» Engineering Data



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Song Chuan:

[894H-2AC1-F-C-12VDC](#) [894-2CC1-F-C-110VDC](#) [894-2CC1-F-S-24VDC](#) [894H-2CH2-F-C-110 VDC](#) [894H-2CH2-F-S-12VDC](#) [894H-2CH1-F-S-12VDC](#) [894H-2AH1-F-S-18VDC](#) [894H-2CC1-F-S24VDC](#) [894H2AH2-FS](#) [894-2AC2-F-C 12VDC](#) [894H-2AH1-F-C 12VDC](#) [894H-2AH1-F-S 5VDC](#) [894H-2AH2-F-C 12VDC](#) [894H-2CH1-F-C 12VDC](#) [894H-2CH1-F-C 24VDC](#) [894H-2CH2-F-C 24VDC](#) [894H-2CH-F-C 48VDC](#)