



SRUDH series

12 Amp Miniature Power PC Board Relay

Appliances, HVAC, Office Machines

- UL File No. E82292
- CSA File No. LR48471
- TUV File No. R60271

Features

- Low cost, small package, 12 Amp switching capacity.
- 1 Form A and 1 Form C contact arrangements.
- Immersion cleanable, sealed version available.
- Applications include appliance, HVAC, security system, garage opener control, emergency lighting.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT).
Material: Ag Alloy.
Max. Switching Rate: 300 ops./min. (no load).
 30 ops./min. (rated load).
Expected Mechanical Life: 10 million operations (no load).
Expected Electrical Life: 100,000 operations (rated load).
Minimum Load: 100mA @ 5VDC.
Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

Ratings: 12A @ 120VAC resistive,
 10A @ 240VAC resistive,
 10A @ 28VDC resistive.

4A @ 120VAC inductive (cosφ= 0.4),
 4A @ 28VDC inductive (L/R=7msec)

Max. Switched Voltage: AC: 240V.
 DC: 28V.
Max. Switched Current: 12A.
Max. Switched Power: 2,400VA, 300W.

Initial Dielectric Strength

Between Open Contacts: 750VAC 50/60 Hz. (1 minute).
Between Coil and Contacts: 1,500VAC 50/60 Hz. (1 minute).
Surge Voltage Between Coil and Contacts: 3,000V (1.2 / 50μs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDCM.

Coil Data

Voltage: 3 to 48VDC.
Nominal Power: 360 mW except 48VDC coil (510mW)
Coil Temperature Rise: 35°C max., at rated coil voltage.
Max. Coil Power: 130% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

SRUDH				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
3	120	25	2.25	0.30
6	60	100	4.50	0.60
9	40	225	6.75	0.90
12	30	400	9.00	1.20
24	15	1,600	18.00	2.40
48	10	4,500	36.00	4.80

Operate Data

Must Operate Voltage: 75% of nominal voltage or less.
Must Release Voltage: 10% of nominal voltage or more.
Operate Time: 15 ms max.
Release Time: 5 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +60°C
Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude
Operational: 10 to 55 Hz., 1.5mm double amplitude.
Shock, Mechanical: 1,000m/s² (100G approximately).
Operational: 100m/s² (10G approximately).
Operating Humidity: 20 to 85% RH. (Non-condensing).

Mechanical Data

Termination: Printed circuit terminals.
Enclosure (94V-0 Flammability Ratings):
SRUDH-SS: Vented (Flux-tight) plastic cover
SRUDH-SH: Sealed plastic case
Weight: 0.42 oz (12g) approximately.

Ordering Information

Typical Part Number ▶

SRUDH

-SS

-1

12

D

M

1

1. Basic Series:

SRUDH = Miniature Power PC board relay.

2. Enclosure:

SS = Vent (Flux-tight)* plastic cover.
SH = Sealed, plastic case.

3. Termination:

1 = 1 pole

4. Coil Voltage:

03 = 3VDC 09 = 9VDC 24 = 24VDC
06 = 6VDC 12 = 12VDC 48 = 48VDC

5. Coil Input:

D = Standard

6. Contact Arrangement:

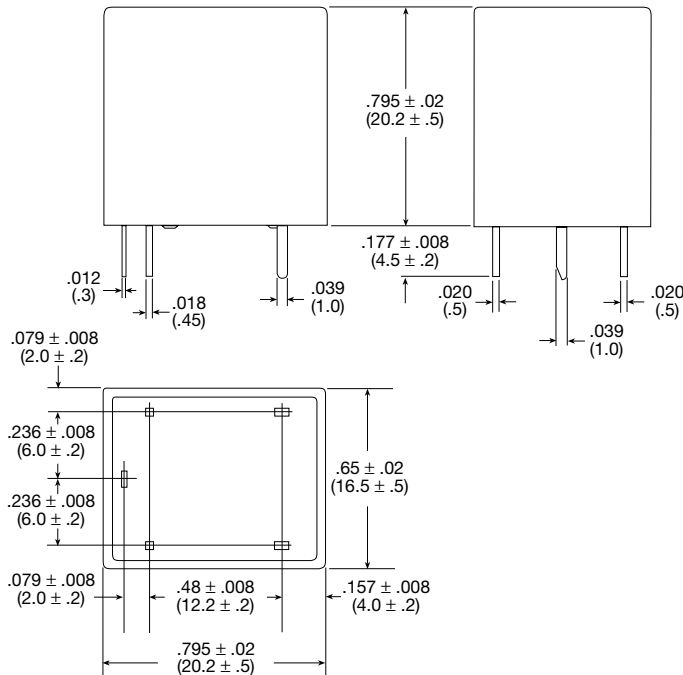
Blank = 1 Form C, SPDT M = 1 Form A, SPST-NO

7. Contact Material:

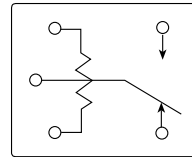
1 = AgCdO

* Not suitable for immersion cleaning processes.

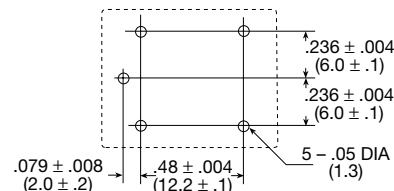
Outline Dimensions



Wiring Diagram (Bottom View)

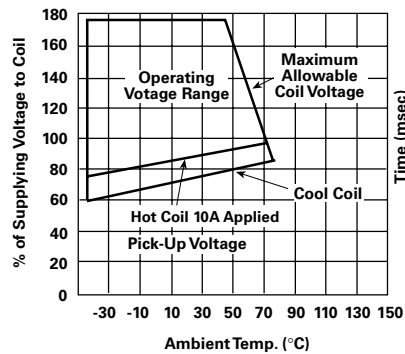


PC Board Layout (Bottom View)

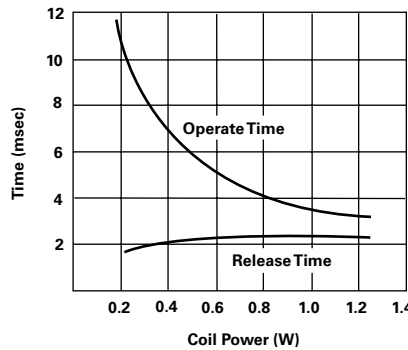


Reference Data

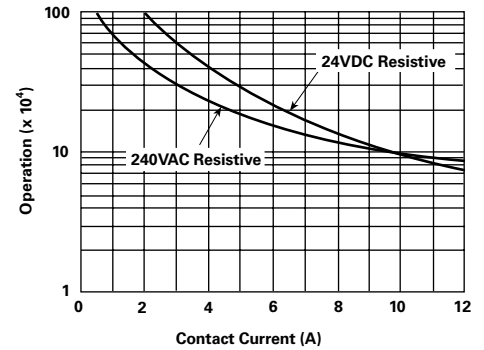
Coil Temperature Rise



Operate Time



Life Expectancy



Note: This data is based on the max. allowable temperature for E type insulation coil (115°C).