



T7C series

12 Amp Miniature Power PC Board Relay

File E29244

File LR48471

Features

- 12 amp switching capacity.
- UL Class F coil insulation system.
- 1 Form A and 1 Form C contact arrangements.
- Ideal for domestic appliances, HVAC and security.
- Resists high temperature and various chemical solutions.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT).

Material: Silver-cadmium oxide.

Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).

Expected Mechanical Life: 10 million operations.

Expected Electrical Life: 100,000 operations.

Minimum Load: 10mA @ 5VDC

Initial Contact Resistance: 100 milliohms max. @ 100mA, 6VDC.

Coil Data @ 20°C

Voltage: 3 to 48VDC.

Nominal Power: 360 milliwatts.
510 milliwatts for 48VDC coil.

Coil Temperature Rise: 35°C max, at rated coil voltage.

Max. Coil Voltage: 130% of nominal.

Duty Cycle: Continuous.

Coil Data @ 20°C

Rated Coil Voltage (VDC)	Coil Resistance (Ohms) +10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
3	25	2.25	0.15
5	70	3.50	0.25
6	100	4.50	0.30
9	225	6.75	0.45
12	400	9.00	0.60
24	1,600	18.00	1.20
48	4,500	36.00	2.40

Contact Ratings @ 20C with relay properly vented. Remove vent nib after soldering and cleaning.

Contact Arrang.	UL/CSA Ratings	Type	Expected Operations
1 & 5	12A NO @ 120VAC	Resistive/GP	100,000
	1/3HP NO @ 120VAC	Motor	6,000
	34.8LRA/6FLA NO @120VAC	Motor	100,000
	10A/5A @ 240VAC	Resistive/GP	100,000
	10A/5A @ 28VDC	Resistive	100,000
	240VA, 240VAC	Pilot Duty	100,000

Consult factory for other ratings.

Operate Data @ 20°C

Operate Time: 10 ms (excluding bounce).

Release Time: 5 ms (excluding bounce).

Environmental Data

Temperature Range:

Storage: -40°C to +130°C.

Operating: -40°C to +85°C.

Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude

Operational: 10 to 55 Hz., 1.5mm double amplitude.

Shock, Mechanical: 100g min.

Operational: 10g min.

Operating Humidity: 45 to 85% RH.

Initial Dielectric Strength

Between Open Contacts: 750VAC 50/60 Hz. (1 minute).

Between Coil and Contacts: 1,500VAC 50/60 Hz. (1 minute).

Initial Insulation Resistance

Between Mutually Insulated Elements: 10⁸ ohms min. @ 500VDC.
Ag contact rating.

Mechanical Data

Termination: Printed circuit terminals.

Enclosure (94V-0 Flammability Ratings):

T7CS: Immersion cleanable with knock-off nib.

T7CV: Vented, flux-tight, plastic cover with knock-off nib.

Weight: 0.42 oz. (12g).

Ordering Information

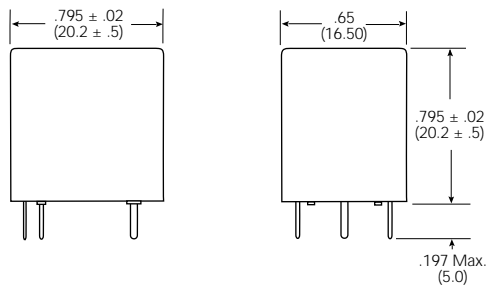
Typical Part Number ▶		T7C	V	5	D	-24
1. Basic Series: T7C = Miniature power relay.						
2. Enclosure: V = Vented (Flux-tight)* S = Immersion cleanable case with knock-off nib.						
3. Contact Arrangement: 1 = 1 Form A (SPST-NO) 5 = 1 Form C (SPDT)						
4. Coil Input: D = DC Voltage						
5. Coil Voltage: 03 = 3VDC 05 = 5VDC 06 = 6VDC 09 = 9VDC 12 = 12VDC 18 = 18VDC 24 = 24VDC 48 = 48VDC						

* Not suitable for immersion cleaning processes.

Stock Items – The following items are maintained in stock.

T7CV5D-05	T7CV5D-12	T7CS5D-05	T7CS5D-12
T7CV5D-06	T7CV5D-24	T7CS5D-06	T7CS5D-24

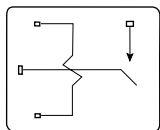
Outline Dimensions



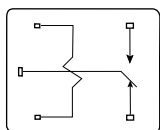
Movable Contact Terminal:
.012 x .039 (0.3 x 1.0)
Stationary Contact Terminals:
.012 x .039 (0.3 x 1.0)
Coil Terminals:
.022 x .022 (.56 x .56)

Wiring Diagrams (Bottom Views)

1 Form A

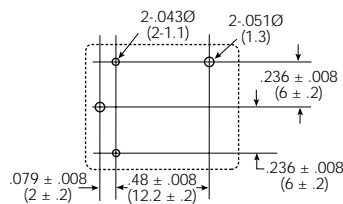


1 Form C



Suggested PC Board Layouts (Bottom Views)

1 Form A



1 Form C

