



# T85 series

## HIGH SENSITIVITY, DIP PC BOARD RELAY

File E29244

File LR35579

### FEATURES

- Ultra sensitive DC coils through 48 volts.
- Switches up to 2 amps.
- Standard DIP configuration mates with 16-pin socket.
- Bifurcated contacts in a 2 Form C arrangement.
- 1,500 volt surge strength – meets FCC Part 68.
- Well suited for application in telecommunications equipment, audio equipment and business machines.
- Immersion cleanable, plastic sealed case.

### CONTACT DATA @ 20 C

Contact Style	Series 4	Series 5
<b>Arrangement:</b>	Bifurcated 2 Form C (DPDT)	Bifurcated 2 Form C (DPDT)
<b>Material: Stationary:</b>	Gold overlay silver-palladium alloy	Gold overlay silver-nickel alloy
<b>Movable:</b>	Silver-palladium alloy	Gold overlay silver-nickel alloy
<b>Initial Contact Resistance:</b>	100 milliohms, max. @ 100mA, 6VDC	100 milliohms, max. @ 100mA, 6VDC
<b>Ratings: Max. Switched Current:</b>	1.25A, AC or DC	2A, AC or DC
<b>Max. Switched Voltage:</b>	60VDC, 120VAC	150VDC, 125VAC
<b>Max. Switched Power:</b>	24W or 60VA	30W or 62.5VA
<b>Max. Carry Current:</b>	2A, AC or DC	2A, AC or DC
<b>Min. Switched Current:</b>	10µA, AC or DC	10µA, AC or DC
<b>Min. Switched Voltage:</b>	50µV, AC or DC	50µV, AC or DC
<b>Min. Switched Power:</b>	25µW, AC or DC	25µW, AC or DC
<b>Expected Mechanical Life:</b>	20 million ops.	10 million ops.
<b>Expected Electrical Life:</b>	500,000 operations @ 1A, 24VDC, res. 200,000 operations @ .5A, 120VAC, res.	100,000 operations @ 2A, 30VDC 200,000 operations @ .4A, 120VAC

### INITIAL DIELECTRIC STRENGTH

- Between Open Contacts:** 500V rms, 50/60 Hz., for 1 minute.
- Between Poles:** 1,000V rms, 50/60 Hz., for 1 minute.  
1,500V rms surge per FCC Part 68.
- Between Coil and Contacts:** 1,000V rms, 50/60 Hz., for 1 minute.  
1,500V rms surge per FCC Part 68.

### INITIAL INSULATION RESISTANCE

- Between Mutually Insulated Conductors:** 10<sup>9</sup> ohms @ 500VDC.

### COIL DATA @ 20 C

- Voltage:** 4.5 through 48VDC.
- Nominal Power:** See Coil Data table.

- Maximum Coil Power:** 725 milliwatts, for contact style series 4.  
800 milliwatts, for contact style series 5.
- Temperature Rise:** 110°C per watt, typical.
- Duty Cycle:** Continuous.

### COIL DATA @ 20°C - FOR CONTACT STYLE SERIES 4

Nominal Voltage (VDC)	Resistance ±10% (Ohms)	Nominal Coil Power (mW)
4.5	135	150
5	167	150
6	240	150
9	540	150
12	960	150
24	2,880	200
48	7,680	300

### COIL DATA @ 20°C - FOR CONTACT STYLE SERIES 5

Nominal Voltage (VDC)	Resistance ±10% (Ohms)	Nominal Coil Power (mW)
4.5	36	560
5	45	560
6	66	550
9	140	580
12	280	510
24	1,070	540
48	4,000	580

### OPERATE DATA @ 20 C

- Must Operate Voltage:** 70% of nominal voltage or less.
- Must Release Voltage:** 5% of nominal voltage or more.
- Operate Time (Excluding Bounce)†:** 6 ms, max.
- Release Time (Excluding Bounce)†:** 3 ms, max.
- Operate Bounce:** 3 ms, max.
- Release Bounce:** 4 ms, max.

† At or from Nominal Coil Voltage.

### ENVIRONMENTAL DATA

- Temperature Range:** -30°C to +80°C, for contact style series 4.  
-40°C to +60°C, for contact style series 5.
- Vibration, Operational:** 10 g, 10-55 Hz.
- Shock, Operational:** 10 g for 11 ms, 1/2 sine wave.
- Shock, Non-destructive:** 100 g for 6 ms, 1/2 sine wave.

### MECHANICAL DATA

- Termination:** DIP compatible, printed circuit terminals.
- Enclosure:** Sealed PBT plastic case.
- Weight:** 0.16 oz. (4.5 g) approximately.