

# AZ9731T5

## 50 AMP MINI-ISO AUTOMOTIVE RELAY

### FEATURES

- Quick connect terminals
- 50 Amp contact rating
- High operating temperature (125°C)
- Epoxy sealed versions available
- Plastic or steel mounting bracket available
- Resistor or diode parallel to coil available
- Suitable for automobile and lamp accessory applications



### CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 700W Max. switched current: 50 A (N.O.) 30 A (N.C.) Max. switched voltage: 75 VDC 1 Form A : 50A at 14VDC 20A at 28VDC 1 Form C : 50A/30A at 14VDC (N.O./N.C.) 20A/15A at 28VDC (N.O./N.C.)
Material	Silver tin oxide
Resistance	< 100 milliohms initially (6 V, 1 A voltage drop method)

### COIL

Power	
At Pickup Voltage (typical)	0.68 W
Max. Continuous Dissipation	4.8 W at 20°C (68°F)
Temperature Rise	75°C (135°F) at nominal coil voltage (40A)
Temperature	Max. 125°C (257°F)

### GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 50 A, 14VDC Res.
Operate Time (max.)	10 ms at nominal coil voltage
Release Time (max.)	10 ms at nominal coil voltage
Dielectric Strength (at sea level for 1 min.)	50~60Hz AC500V 1min coil to contact 50~60Hz AC500V 1min contact to contact
Insulation Resistance	100 megohms min. at 500 VDC, 20°C 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating	-40°C (-40°F) to 125°C (257°F)
Vibration	5~22.30Hz double amplitude 10mm 22.3~500Hz 98m/s <sup>2</sup>
Shock	294m/s <sup>2</sup>
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy 0.25 Quick Connect Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
Weight	35 grams

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

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## RELAY ORDERING DATA

COIL SPECIFICATIONS			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$
12	7.8	15.6	90
24	15.6	31.2	360

## RELAY ORDERING DATA

### AZ9731T5-1C-12DC2R1

- Blank - Standard no diode, no resistor
- R1 - 680 Ohm  $\frac{1}{2}$  w resistor in parallel with 12 V coil  
2700 Ohm  $\frac{1}{2}$  w resistor in parallel with 24 V coil
- D2 - 1N4005 diode in parallel with coil, cathode on #86 terminal
- D3 - 1N4005 diode in parallel with coil, cathode on #85 terminal
- C1 - Plastic dust cover with steel mounting bracket
- C1E - Plastic dust cover with steel mounting bracket, sealed
- C2 - Plastic dust cover with plastic mounting bracket
- C2E - Plastic dust cover with plastic mounting bracket, sealed
- C3 - Plastic dust cover
- C3E - Plastic dust cover, sealed
- 24D - 24 volt coil
- 12D - 12 volt coil
- 1A - SPNO Single pole normally open
- 1C - SPDT Single pole double throw
- Basic series designation - **AZ9731T5 Plug in**  
**AZ9741T5 PCB**

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