

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	Minimum operations
Mechanical	1 x 10 ⁷
Electrical	1 x 10 ⁵ 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 ²
Shock	294m/s ²
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.

AMERICAN ZETTLER, INC.

9/10/19

AZ9731T5

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

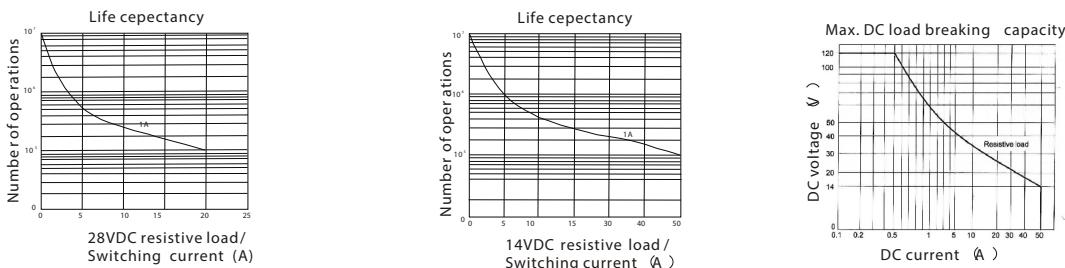
RELAY ORDERING DATA

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**

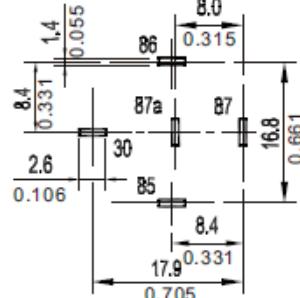
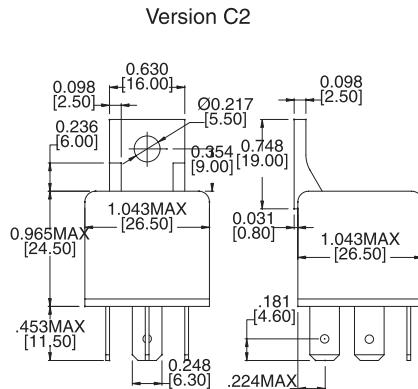
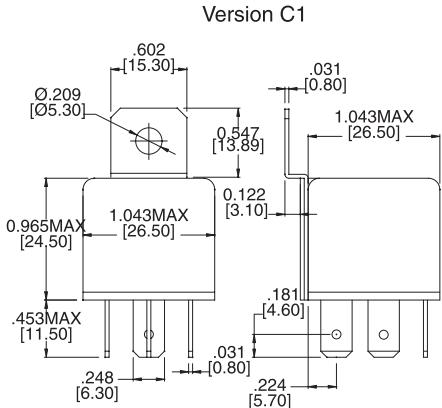
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Reference Date

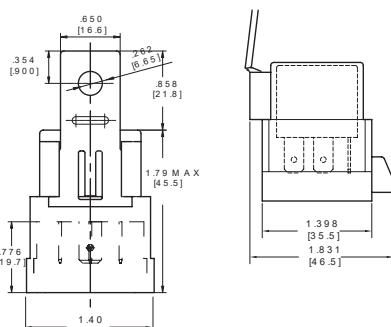
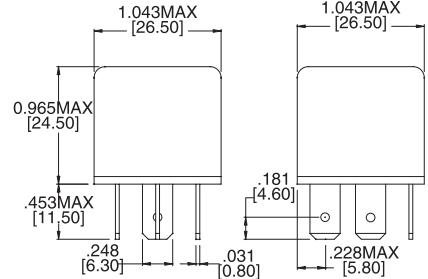


MECHANICAL DATA

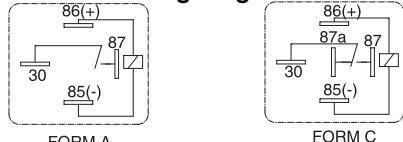
Outline Dimensions



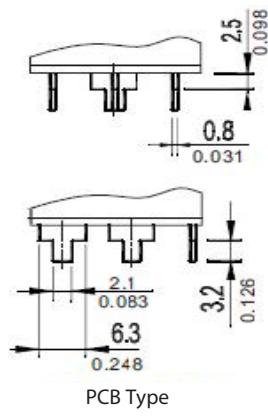
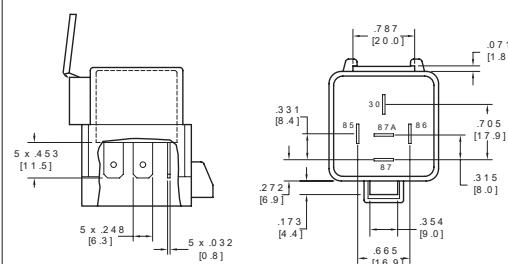
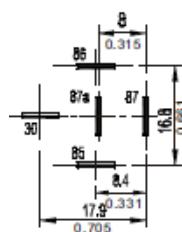
Version C3



Wiring Diagrams



Viewed Toward Terminals



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010"$

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.