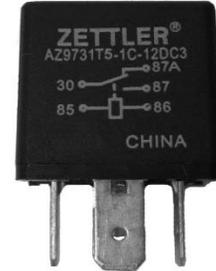


# AZ9731T5

## 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

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	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.)
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 100 milliohms initially (6 V, 1 A voltage drop method)

### COIL

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

### GENERAL DATA

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

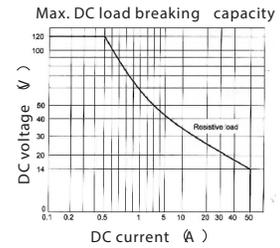
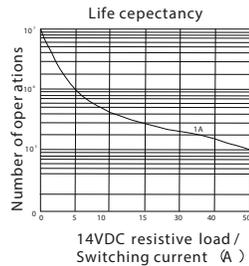
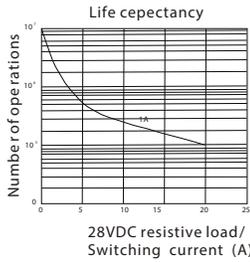
## RELAY ORDERING DATA

### 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**

# AZ9731T5

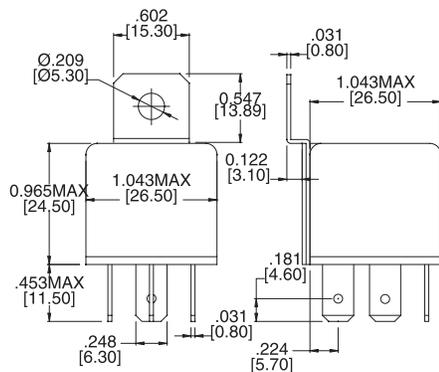
## Reference Data



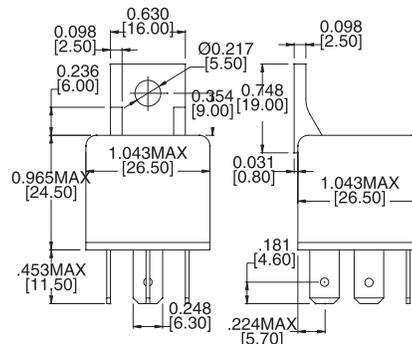
## MECHANICAL DATA

### Outline Dimensions

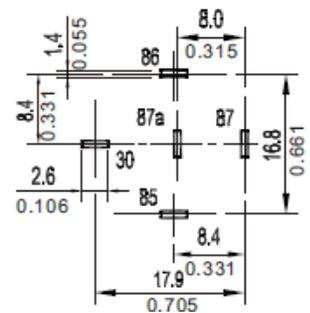
Version C1



Version C2

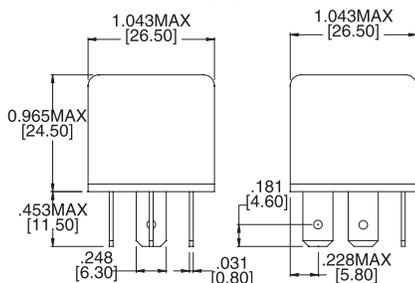


AZ9741T5

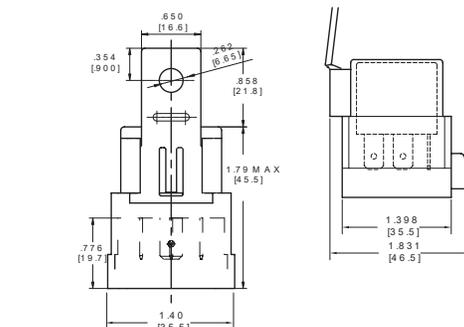


Form A PCB Type

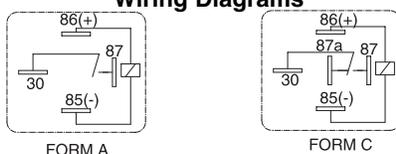
Version C3



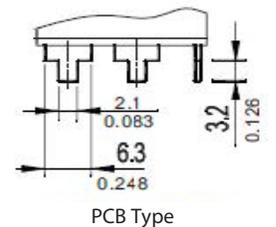
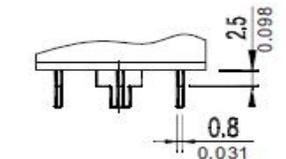
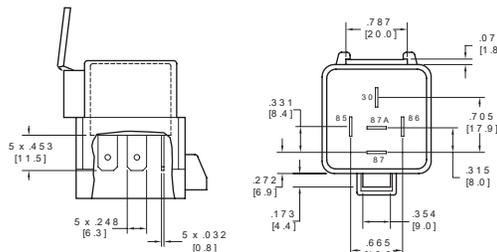
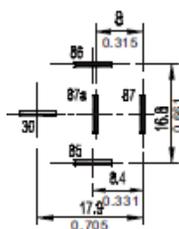
Version C4



### Wiring Diagrams



### Viewed Toward Terminals



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

# AMERICAN ZETTLER, INC.

9/10/19

PHONE: (949) 831-5000

www.azettler.com

E-MAIL: SALES@AZETTLER.COM

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.