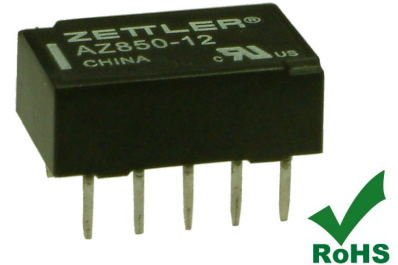


# AZ850

## MICROMINIATURE POLARIZED RELAY

### FEATURES

- Compact size: Height: 0.197" (5 mm); Length: 0.551" (14 mm); Width: 0.354" (9 mm)
- DPDT (2 Form C) contact arrangements
- Monostable non-latching and bistable latching types available
- Single and dual coil latching versions
- High sensitivity coil - 79 mW pickup
- Meets FCC Part 68.302 1500 V lightning surge
- DIP terminal layout, fits 10 pin IC socket
- Epoxy sealed for automatic wave soldering and cleaning
- Gold clad contacts
- RoHS compliant
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) Bifurcated crossbar contacts
<b>Ratings (max.)</b>	(resistive load) switched power 30 W or 62.5 VA switched current 1 A carry current 2 A switched voltage 220 VDC* or 250 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Loads</b>	UL, CUR 1 A at 30 VDC, resistive 0.5 A at 125 VAC, resistive
<b>Contact materials</b>	AgPd - silver palladium, gold clad
<b>Minimum switching</b>	voltage 10 mV current 10 µA
<b>Initial resistance</b>	< 50 mΩ

### GENERAL DATA

<b>Life Expectancy</b>	(minimum operations) mechanical $1 \times 10^6$ electrical $2 \times 10^5$ at 1 A 30 VDC resistive $1 \times 10^5$ at 0.5 A 125 VAC resistive
<b>Operate Time</b>	at nominal coil voltage non-latching types 2 ms (typ.)
<b>Release Time</b>	at nominal coil voltage, w/o coil suppression non-latching types 1 ms (typ.)
<b>Set Time</b>	at nominal coil voltage latching types 2 ms (typ.)
<b>Reset Time</b>	at nominal coil voltage latching types 1 ms (typ.)
<b>Capacitance</b>	(typ.) coil to contacts 0.9 pF between contact sets 0.2 pF between open contacts 0.4 pF

### GENERAL DATA (cont'd)

<b>Dielectric Strength</b>	(at sea level for 1 min.) coil to contacts 1 kV <sub>RMS</sub> between contact sets 1 kV <sub>RMS</sub> between open contacts 1 kV <sub>RMS</sub>  Meets FCC Part 68.302 1500 V lightning surge
<b>Surge voltage</b>	coil to contacts 1.5 kV between contact sets 2.5 kV between open contacts 1.5 kV
<b>Insulation Resistance</b>	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
<b>Temperature Range</b>	(at nominal coil voltage) operating -40°C (-40°F) to 85°C (158°F)
<b>Vibration resistance</b>	operating 3 mm (0.118") DA at 10–55 Hz damage 5 mm (0.197") DA at 10–55 Hz
<b>Shock</b>	operating 50 g
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b>	max. temperature 250°C (500°F) max. time 5 seconds
<b>Cleaning</b>	max. solvent temp. 80°C (176°F) max. immersion time 30 seconds
<b>Weight</b>	1.5 grams
<b>Packing unit</b>	(pcs) plastic tube 25 carton box 1000

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Relay has fixed coil polarity
4. For complete isolation between the relay's magnetic fields, it is recommended that a .197" (5.0 mm) space be provided between adjacent relays.
5. Relay adjustment may be affected if undue pressure is exerted on relay case
6. Ultrasonic cleaning is not recommended.
7. Specifications subject to change without notice.

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This product specification to be used only together with the application notes which can be downloaded from [www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf](http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf)

# AZ850

## COIL

<b>Nominal coil DC voltages</b>	see coil voltage specifications tables
<b>Dropout</b> non-latching types	> 10% of nominal coil voltage
<b>Power at pickup voltage</b> monostable non-latching bistable single coil latching bistable dual coil latching	(typ.) 79 - 113 mW 56 - 84 mW 113 - 169 mW
<b>Temperature Rise</b> at nominal coil voltage	18 K (32°F)
<b>Max. temperature</b>	105°C (211°F)

## COIL VOLTAGE SPECIFICATIONS

### Monostable non-latching

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	7.5	64
4.5	3.4	11.25	145
5	3.75	12.5	178
6	4.5	15.0	257
9	6.75	22.5	579
12	9.0	30.0	1028
24	18.0	48.0	2880

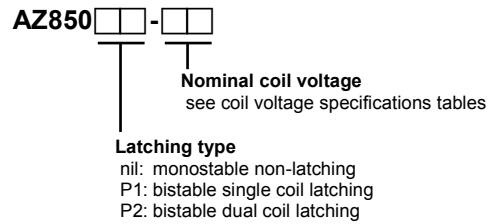
### Single coil latching

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	8.7	90
4.5	3.4	13.0	203
5	3.75	14.5	250
6	4.5	17.4	360
9	6.75	26.1	810
12	9.0	34.8	1440
24	18.0	57.6	3840

### Dual coil latching

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	6.0	45
4.5	3.4	9.0	101
5	3.75	10.0	125
6	4.5	12.0	180
9	6.75	18.0	405
12	9.0	24.0	720
24	18.0	36.0	1920

## ORDERING DATA

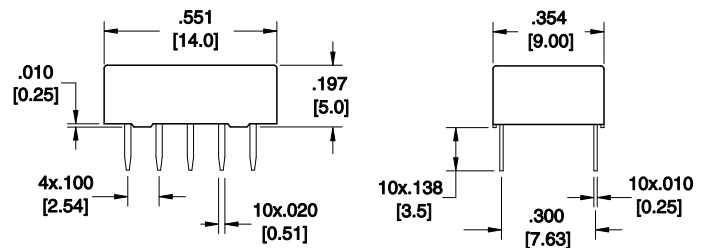


### Example ordering data

AZ850-5	Monostable type, 5 VDC nominal coil voltage
AZ850P1-12	Single coil latching, 12 VDC nominal coil voltage
AZ850P2-4.5	Dual coil latching, 4.5 VDC nominal coil voltage

## MECHANICAL DATA

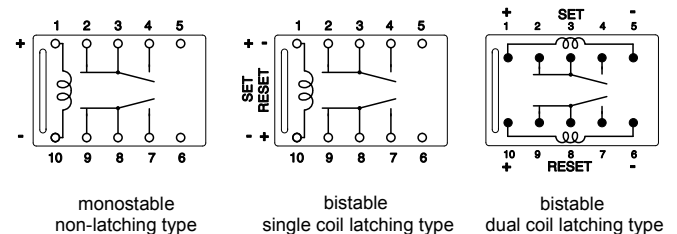
Dimensions in inches with metric equivalents in parentheses



## WIRING DIAGRAMS

Viewed towards terminals, shown in deenergized / reset condition.

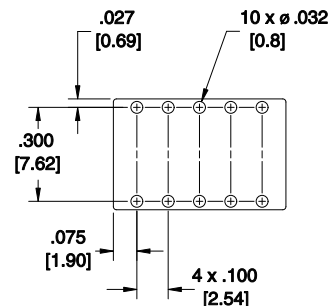
Note: Stripe marking on top of relay indicates position of pin 1



## PC BOARD LAYOUT

Viewed towards terminals.

Dimensions in inches with metric equivalents in parentheses.



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