

# AZ830P

## POLARIZED DIP RELAY BISTABLE (LATCHING)

### FEATURES

- High sensitivity, 86 mW pickup
- Low profile DIP package
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- Epoxy sealed for automatic wave soldering and cleaning
- DC coils to 48 VDC
- High switching capacity, 60 W, 125 VA
- Fits standard 16 pin IC socket
- UL file E43203; CSA file LR 36664



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) Bifurcated crossbar contacts
<b>Ratings</b>	Resistive load: Max. switched power: 60 W or 125 VA Max. switched current: 2 A Max. switched voltage: 150 VDC or 300 VAC
<b>Rated Load UL</b>	2 A at 30 VDC 1 A at 120 VAC
<b>Material</b>	Silver alloy, gold clad. Silver palladium, gold clad available upon request (not recommended for current greater than 1 Amp).
<b>Resistance</b>	< 50 milliohms initially

### COIL (Polarized)

<b>Power At Pickup Voltage (typical)</b>	Standard coil: 176 mW Sensitive coil: 90 mW Ultra-Sensitive coil: 86 mW
<b>Max. Continuous Dissipation Temperature Rise</b>	1.2 W at 20°C (68°F) ambient 0.9 W at 40°C (104°F) ambient Standard: 38°C (68°F) at nominal coil voltage Sensitive: 21°C (38°F) at nominal coil voltage Ultra-Sensitive: 16°C (29°F) at nominal coil voltage
<b>Temperature</b>	Max. 115°C (239°F)

### 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. Relay adjustment may be affected if undue pressure is exerted on relay case.
5. For complete isolation between the relay's magnetic fields, it is recommended that a .197" (5.0 mm) space be provided between adjacent relays.
6. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>8</sup> 1 x 10 <sup>5</sup> at 2 A, 30 VDC or 1 A, 125 VAC 2 x 10 <sup>6</sup> at 1 A, 30 VDC or .5 A, 125 VAC
<b>Set Time (typical)</b>	3 ms at nominal coil voltage
<b>Reset Time (typical)</b>	3.5 ms at nominal coil voltage
<b>Capacitance</b>	Contact to contact: 1.0 pF Contact set to contact: 1.0 pF Contact to coil: 2.0 pF
<b>Bounce (typical)</b>	At 10 mA contact current 1.5 ms at operate N.O. side 2.5 ms at operate N.C. side
<b>Dielectric Strength (at sea level)</b>	1500 Vrms contact to coil 1000 Vrms between contact sets 1000 Vrms across contacts Meets FCC Part 68.302 lightning surge Meets FCC Part 68.304 V dielectric
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Ambient Temperature Operating</b>  <b>Storage</b>	At nominal coil voltage Standard: -40°C (-40°F) to 85°C (185°F) Sensitive: -40°C (-40°F) to 95°C (203°F) Ultra-Sensitive: 40°C (-40°F) to 100°C (212°F) All: -40°C (-40°F) to 115°C (239°F)
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	40 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	5 grams



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

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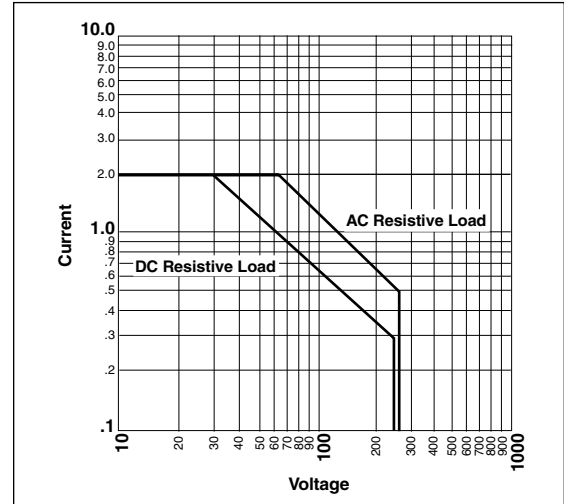
# AZ830P

## RELAY ORDERING DATA

COIL SPECIFICATIONS				
STANDARD COIL				ORDER NUMBER*
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Set Reset VDC	
3	4.5	25	2.1	AZ830P-2C-3DE
5	7.5	69.4	3.5	AZ830P-2C-5DE
6	9.0	100	4.2	AZ830P-2C-6DE
9	13.5	225	6.3	AZ830P-2C-9DE
12	18.0	400	8.4	AZ830P-2C-12DE
24	36.0	1600	16.8	AZ830P-2C-24DE
48	72.0	6400	33.6	AZ830P-2C-48DE
SENSITIVE COIL				
3	6.4	50	2.1	AZ830P-2C-3DSE
5	10.6	139	3.5	AZ830P-2C-5DSE
6	12.7	200	4.2	AZ830P-2C-6DSE
9	19.1	450	6.3	AZ830P-2C-9DSE
12	25.5	800	8.4	AZ830P-2C-12DSE
24	50.9	3200	16.8	AZ830P-2C-24DSE
ULTRA-SENSITIVE COIL				
3	7.3	66.7	2.4	AZ830P-2C-3DSSE
5	12.3	185	4.0	AZ830P-2C-5DSSE
6	14.7	267	4.8	AZ830P-2C-6DSSE
9	22.0	600	7.2	AZ830P-2C-9DSSE
12	29.4	1067	9.6	AZ830P-2C-12DSSE
24	58.8	4267	19.2	AZ830P-2C-24DSSE

\* Add suffix "R" to indicate reversed polarity.

## Maximum Switching Capacity



## MECHANICAL DATA

### PC BOARD LAYOUT

Viewed toward terminals

### WIRING DIAGRAM

Diagrams show the "reset" position before energized with polarity as shown

Viewed toward terminals

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



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