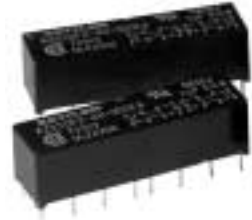


AZ830 4POLE

4 POLE POLARIZED MINIATURE DIP RELAY

FEATURES

- Single side stable and two coil bistable versions
- High sensitivity, 90 mW pickup
- Low profile DIP package
- DC coils to 48 VDC
- Life expectancy to 100 million operations
- 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
- UL file E43203; CSA file 73363



CONTACTS

Arrangement	4PDT (4 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 60 W or 60 VA Max. switched current: 2 A Max. switched voltage: 220 VDC or 250 VAC
Rated Load UL	1 A at 30 VDC 0.5 A at 120 VAC
Material	Silver palladium, gold clad
Resistance	< 50 milliohms initially

COIL (Polarized)

Power At Pickup Voltage (typical)	Standard coil: 200 mW, single side stable 180 mW, bistable (latching) two coil Sensitive coil: 100 mW, single side stable 90 mW, bistable (latching) two coil
Max. Continuous Dissipation Temperature Rise	1.27 W at 20°C (68°F) ambient 0.99 W at 40°C (104°F) ambient Standard: 34°C (61°F) at nominal coil voltage Sensitive: 17°C (31°F) at nominal coil voltage
Temperature	Max. 110°C (230°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

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁸ 5 x 10 ⁵ at 2 A, 30 VDC 2 x 10 ⁵ at 0.5 A, 120 VAC
Operate Time (typical)	3 ms at nominal coil voltage
Release Time (typical)	2 ms at nominal coil voltage (with no coil suppression)
Capacitance	Contact to contact: 1.0 pF Contact set to contact: 1.7 pF Contact to coil: 2.0 pF
Bounce (typical)	At 10 mA contact current 0.3 ms at operate 0.3 ms at release
Dielectric Strength (at sea level)	1500 Vrms contact to coil 1500 Vrms between contact sets 1000 Vrms across contacts 250 Vrms coil to coil (dual coil) 1500 Vrms surge contact to coil 1500 Vrms surge contact set to contact set Meets FCC Part 68.302 lightning surge Meets FCC Part 68.304 V dielectric
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage Standard: -40°C (-40°F) to 70°C (158°F) Sensitive: -40°C (-40°F) to 80°C (176°F) Both: -40°C (-40°F) to 110°C (230°F)
Vibration	0.062" DA at 10–55 Hz
Shock	30 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	260°C (500°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	6.5 grams



AMERICAN ZETTLER, INC.

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2/26/03W

STANDARD RELAYS: Single Side Stable					
COIL SPECIFICATIONS					ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%		Must Operate VDC	
5	9	62.5		3.5	AZ830-4C-5DEA
6	10	90		4.2	AZ830-4C-6DEA
9	16	203		6.3	AZ830-4C-9DEA
12	21	360		8.4	AZ830-4C-12DEA
24	43	1440		16.8	AZ830-4C-24DEA
48	86	5760		33.6	AZ830-4C-48DEA
SENSITIVE RELAYS: Single Side Stable					
5	12	125		3.5	AZ830-4C-5DSEA
6	15	180		4.2	AZ830-4C-6DSEA
9	23	405		6.3	AZ830-4C-9DSEA
12	30	720		8.4	AZ830-4C-12DSEA
24	60	2880		16.8	AZ830-4C-24DSEA
48	120	11520		33.6	AZ830-4C-48DSEA
STANDARD RELAYS: Bistable (Latching) Two Coil					
Nominal Coil VDC	Max. Continuous VDC	COIL SPECIFICATIONS		Must Operate VDC	ORDER NUMBER
		Coil I	Coil II		
5	9	69	69	3.5	AZ830P2-4C-5DEA
6	10	100	100	4.2	AZ830P2-4C-6DEA
12	21	400	400	8.4	AZ830P2-4C-12DEA
24	43	1,600	1,600	16.8	AZ830P2-4C-24DEA
48	86	6,400	6,400	33.6	AZ830P2-4C-48DEA
SENSITIVE RELAYS: BISTABLE (Latching) Two Coil					
5	10	139	139	3.5	AZ830P2-4C-5DSEA
6	13	200	200	4.2	AZ830P2-4C-6DSEA
12	26	800	800	8.4	AZ830P2-4C-12DSEA
24	52	3,200	3,200	16.8	AZ830P2-4C-24DSEA
48	104	12,800	12,800	33.6	AZ830P2-4C-48DSEA

PC BOARD LAYOUT

.03 DIA (0.8) (16 HOLES)

.044 (1.11) REF

.048 (1.23) REF

.300 (7.62) REF

.019 ± .005 (0.48 ± 0.13) TYP

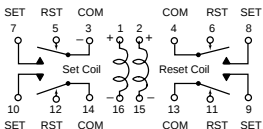
.010 ± .005 (0.25 ± 0.13) TYP

Notch on top side

Viewed toward terminals

Two coil versions only

SINGLE SIDE STABLE
WATCH FOR POLARITY



**BISTABLE (LATCHING) TWO COIL
WATCH FOR POLARITY**

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

The graph shows the relationship between Current (Y-axis, logarithmic scale from 0.1 to 10.0) and Voltage (X-axis, logarithmic scale from 10 to 1000). The DC Resistor Load is represented by a horizontal line at 2.0 A from 10 V to 30 V, and a diagonal line from (30, 2.0) to (250, 0.25). The AC Resistor Load is represented by a vertical line at 250 V from 0.1 A to 0.25 A.

Voltage (V)	Current (A)
10	2.0
30	2.0
100	0.707
250	0.25

Voltage (V)	Current (A)
250	0.1
250	0.25

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