

AZ830

POLARIZED DIP RELAY SINGLE SIDE STABLE

FEATURES

- Low profile for compact board spacing
- DC coils to 48 VDC
- High sensitivity, 100 mW pickup
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- Life expectancy to 100 million operations
- High switching capacity, 60 W, 125 VA
- Fits standard 16 pin IC socket
- Epoxy sealed
- UL file E43203 (UL1950); CSA file LR 88413

CONTACTS

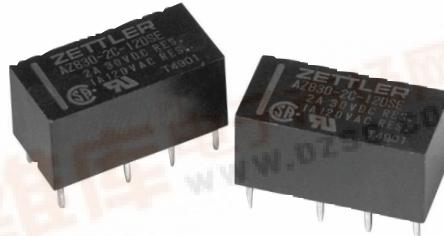
Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 60 W or 125 VA Max. switched current: 2 A Max. switched voltage: 250 VDC or 300 VAC Max. carry current: 3A
Rated Load UL	2 A at 30 VDC 1 A at 120 VAC
Material	Silver alloy, gold clad. Silver palladium, gold clad available upon request (not recommended for current greater than 1 Amp).
Resistance	< 50 millionohms initially

COIL

Power	
At Pickup Voltage (typical)	Standard coil: 200 mW Sensitive coil: 100 mW
Max. Continuous Dissipation	1.0 W at 20°C (68°F) 0.9 W at 40°C (104°F)
Temperature Rise	Standard: 38°C (68°F) at nominal coil voltage Sensitive: 21°C (38°F) at nominal coil voltage
Temperature	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. 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. Specifications subject to change without notice.



GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁸ 1 x 10 ⁵ at 2 A, 30 VDC or 1 A, 125 VAC 2 x 10 ⁶ at 1 A, 30 VDC or .5 A, 125 VAC (see table for additional figures)
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: 1.0 pF Contact to coil: 2.0 pF
Bounce (typical)	At 10 mA contact current 1.5 ms at operate N.O. side 2.5 ms at operate N.C. side
Dielectric Strength (at sea level)	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
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 85°C (185°F) Both: -40°C (-40°F) to 105°C (221°F)
Vibration	0.062" (1.5 mm) DA at 10–55 Hz
Shock	40 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	5 grams

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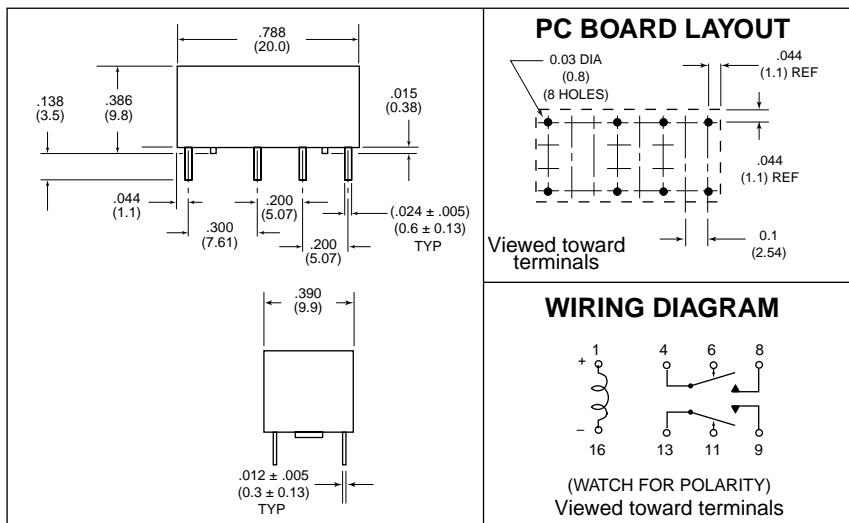
RELAY ORDERING DATA

STANDARD COIL				
COIL SPECIFICATIONS				
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	Must Operate VDC	ORDER NUMBER*
5	7.5	62.5	3.5	AZ830-2C-5DE
6	9.0	90	4.2	AZ830-2C-6DE
12	18.0	360	8.4	AZ830-2C-12DE
24	36.0	1,440	16.8	AZ830-2C-24DE
48	72.0	5,760	33.6	AZ830-2C-48DE

SENSITIVE RELAYS				
5	11.0	125	3.5	AZ830-2C-5DSE
6	13.0	180	4.2	AZ830-2C-6DSE
12	26.0	720	8.4	AZ830-2C-12DSE
24	53.0	2,880	16.8	AZ830-2C-24DSE
48	106.0	11,520	33.6	AZ830-2C-48DSE

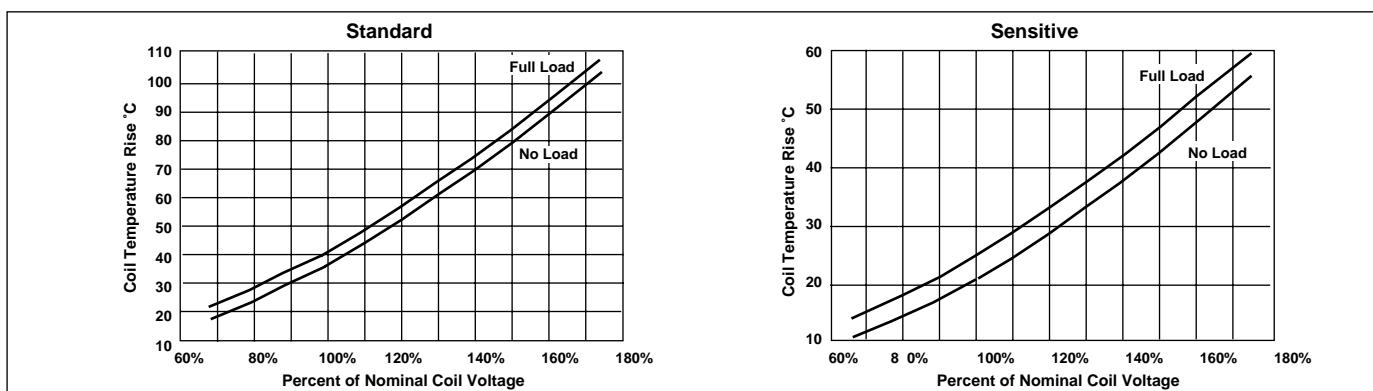
* Add suffix "A" for silver palladium gold clad contacts.

MECHANICAL DATA



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

Coil Temperature Rise



TYPICAL CONTACT LIFE EXPECTANCY

VOLTAGE	POWER	NUMBER OF OPERATIONS	
		RESISTIVE LOAD	INDUCTIVE LOAD
50 mV	50 μW	5×10^7	5×10^7
30 VDC	60 W	5×10^5	15×10^4
30 VDC	40 W	1×10^6	3×10^5
30 VDC	20 W	3×10^6	1×10^6
60 VDC	60 W	5×10^5	—
60 VDC	40 W	1×10^6	—
60 VDC	20 W	3×10^6	—
30 VAC	120 VA	5×10^5	15×10^4
30 VAC	80 VA	1×10^6	3×10^5
30 VAC	40 VA	3×10^6	1×10^6
60 VAC	120 VA	5×10^5	15×10^4
60 VAC	80 VA	1×10^6	3×10^5
60 VAC	40 VA	3×10^6	1×10^6
125 VAC	125 VA	5×10^5	15×10^4
125 VAC	80 VA	1×10^6	3×10^5
125 VAC	40 VA	3×10^6	1×10^6

NOTES: 1. Relays operated at nominal coil voltage.
2. Inductive load tests are at 0.7 power factor.
3. Table represents typical life figures and are not guaranteed minimums.

Maximum Switching Capacity

