AZ830

POLARIZED DIP RELAY SINGLE SIDE STABLE

FEATURES

- · Low profile for compact board spacing
- DC coils to 48 VDC
- High sensitivity, 96 mW pickup
- Life expectancy to 100 million operations
- High switching capacity, 60 W, 125 VA
- Fits standard 16 pin IC socket
- Epoxy sealed for automatic wave soldering and cleaning
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- UL file E43203 (UL1950)

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.		
Resistance	< 50 milliohms initially		

COIL

Power	
At Pickup Voltage (typical)	Standard coil: 200 mW Sensitive coil: 100 mW Ultra-Sensitive coil: 96 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 Ultra-Sensitive: 16°C (29°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 1×10^8 1×10^5 at 2 A, 30 VDC or 1 A, 125 VAC 2×10^6 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) Ultra-Sensitive: -40°C (-40°F) to 90°C (194°F) All: -40°C (-40°F) to 115°C (239°F)		
Vibration	0.062" 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

COIL SPECIFICATIONS							
STANDARD COIL							
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%	Must Operate VDC	ORDER NUMBER*			
3	4.5	22.5	2.1	AZ830-2C-3DE			
5	7.5	62.5	3.5	AZ830-2C-5DE			
6	9.0	90	4.2	AZ830-2C-6DE			
9	13.5	203	6.3	AZ830-2C-9DE			
12	18.0	360	8.4	AZ830-2C-12DE			
24	36.0	1440	16.8	AZ830-2C-24DE			
48	72.0	5760	33.6	AZ830-2C-48DE			
SENSITI	SENSITIVE COIL						
3	6.4	45	2.1	AZ830–2C–3DSE			
5	10.6	125	3.5	AZ830-2C-5DSE			
9	19.1	405	6.3	AZ830-2C-9DSE			
12	25.5	720	8.4	AZ830-2C-12DSE			
24	50.9	2880	16.8	AZ830-2C-24DSE			
48	101.8	11520	33.6	AZ830-2C-48DSE			
ULTRA-	ULTRA-SENSITIVE COIL						
3	7.3	60	2.4	AZ830-2C-3DSSE			
5	12.3	167	4.0	AZ830–2C–5DSSE			
9	22.0	540	7.2	AZ830-2C-9DSSE			
12	29.4	960	9.6	AZ830-2C-12DSSE			
24	58.8	3840	19.2	AZ830–2C–24DSSE			

* Add suffix "R" to indicate reversed polarity.

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MECHANICAL DATA

TYPICAL CONTACT LIFE EXPECTANCY

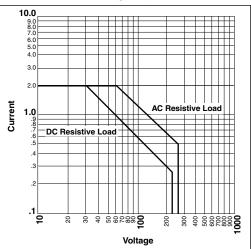
		NUMBER OF OPERATIONS		
VOLTAGE	POWER	RESISTIVE LOAD	INDUCTIVE LOAD	
50 mV	50 µW	5x 10 ⁷	5 x 10 ⁷	
30 VDC	60 W	5 x 10⁵	15 x 104	
30 VDC	40 W	1 x 10 ⁶	3 x 10⁵	
30 VDC	20 W	3 x 10 ⁶	1 x 10 ⁶	
60 VDC	60 W	5 x 105	—	
60 VDC	40 W	1 x 10 ⁶	_	
60 VDC	20 W	3 x 10 ⁶	—	
30 VAC	120 VA	5 x 10⁵	15 x 10 ⁴	
30 VAC	80 VA	1 x 10 ⁶	3 x 10⁵	
30 VAC	40 VA	3 x 10 ⁶	1 x 10 ⁶	
60 VAC	120 VA	5 x 105	15 x 104	
60 VAC	80 VA	1 x 10 ⁶	3 x 10⁵	
60 VAC	40 VA	3 x 10 ⁶	1 x 10 ⁶	
125 VAC	125 VA	5 x 10⁵	15 x 104	
125 VAC	80 VA	1 x 10 ⁶	3 x 10 ⁵	
125 VAC	40 VA	3 x 10 ⁶	1 x 10 ⁶	

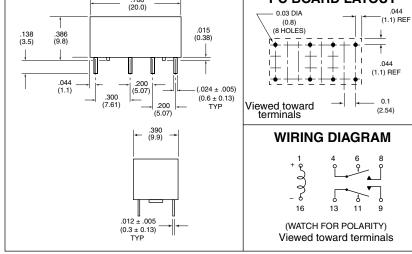
NOTES: 1. Relays operated at nominal coil voltage.

2. Inductive load tests are at 0.7 power factor.

3. Table represents typical life figures and are not guaranteed minimums.

Maximum Switching Capacity





Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

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PC BOARD LAYOUT

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