## **AZ850**

# MICROMINIATURE POLARIZED RELAY

#### **FEATURES**

- Microminiature size: Height: .197 inches (5 mm);
   Length: .551 inches (14 mm); Width: .354 inches (9 mm)
- High sensitivity, 79 mW pickup
- Monostable and bistable (latching) single coil and two coil versions available
- 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
- UL, CUR file E43203



Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts			
Ratings	Resistive load:  Max. switched power: 30 W or 62.5 VA  Max. switched current: 1 A  Max. switched voltage: 220 VDC or 250 VAC  Max. carry current: 2 A			
Rated Load UL	1 A at 30 VDC resistive 0.5 A at 125 VAC resistive			
Material	Silver palladium; gold clad			
Resistance	< 50 milliohms initially			

## **COIL (Polarized)**

Power At Pickup Voltage (typical)	Single side stable: 79–169 mW Bistable (latching) single coil: 56–84 mW Bistable (latching) two coil: 113–169 mW			
Max. Continuous Dissipation	875 mW at 20°C (68°F) ambient			
Temperature Rise	18°C (32°F) at nominal coil voltage			
Temperature	Max. 105°C (221°F)			

#### NOTES

- 1. All values at 20°C (68°F).
- 2. Relay has fixed coil polarity.
- 3. Relay may pull in with less than "Must Operate" value.
- 4. Relay adjustment may be affected if undue pressure is exerted on relay case.
- 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	Minimum operations		
Mechanical	1 x 10 <sup>8</sup>		
Electrical	2 x 10 <sup>5</sup> at 1 A, 30 VDC, resistive		
	1 x 10 <sup>5</sup> at 0.5 A, 125VAC, resistive		
Operate Time (typical)	2 ms at nominal coil voltage		
Release Time (typical)	1 ms at nominal coil voltage (with no coil suppression)		
Set Time (bistable versions)	2 ms at nominal coil voltage (typical)		
Reset Time (bistable versions)	2 ms at nominal coil voltage (typical)		
Dropout	Greater than 10% of nominal coil voltage		
Capacitance	Contact to contact: 0.4 pF Contact set to contact set: 0.2 pF Contact to coil: 0.9 pF		
Dielectric Strength (at sea level)	1000 Vrms between contact sets 1000 Vrms across contacts 1000 Vrms contact to coil Meets FCC part 68.302 1500 V lightning surge		
Insulation Resistance	1000 megohms min. at 25°C, 500 VDC, 50% RH		
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 70°C (158°F) -40°C (-40°F) to 105°C (221°F)		
Vibration	.130" DA at 10-55 Hz		
Shock	50 g		
Enclosure	LCP		
Terminals	Tinned copper alloy, P.C.		
Max. Solder Temp.	250°C (482°F)		
Max. Solder Time	5 seconds		
Max. Solvent Temp.	80°C (176°F)		
Max. Immersion Time	30 seconds		
Weight	1.5 grams		



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### **RELAY ORDERING DATA**

SINGLE SIDE STAB	LE			
Nominal Coil VDC	Must Operate VDC	Max Continuous VDC	Coil Resistance ± 10%	ORDER NUMBER
3	2.3	7.5	64.3	AZ850-3
4.5	3.4	11.25	145.2	AZ850-4.5
5	3.8	12.5	178	AZ850-5
6	4.5	15.0	257	AZ850-6
9	6.8	22.5	579	AZ850-9
12	9.0	30.0	1,028	AZ850-12
24	18.0	48.0	2,880	AZ850-24
48	36.0	80.0	7,680	AZ850-48*
BISTABLE (LATCHII	NG) SINGLE COIL			
	COIL SPEC	FICATIONS		
Nominal Coil VDC	Must Operate VDC	Max Continuous VDC	Coil Resistance ± 10%	ORDER NUMBER
3	2.3	8.7	90	AZ850P1-3
4.5	3.4	13.0	203	AZ850P1-4.5
5	3.8	14.5	250	AZ850P1-5
6	4.5	17.4	360	AZ850P1-6
9	6.8	26.1	810	AZ850P1-9
12	9.0	34.8	1440	AZ850P1-12
24	18.0	57.6	3840	AZ850P1-24
BISTABLE (LATCHII	NG) TWO COIL		•	
	COIL SPEC	IFICATIONS		
Nominal Coil	Must Operate	Max Continuous	Coil Resistance	ORDER NUMBER
VDC	VDC	VDC	Coil I Coil II	
3	2.3	6.0	45 45	AZ850P2-3
4.5	3.4	13.0	102 102	AZ850P2-4.5
5	3.8	10.0	125 125	AZ850P2-5
6	4.5	12.0	180 180	AZ850P2-6
9	6.8	18.0	405 405	AZ850P2-9

24

40

720

1,920

720

1,920

\*Not UL Approved

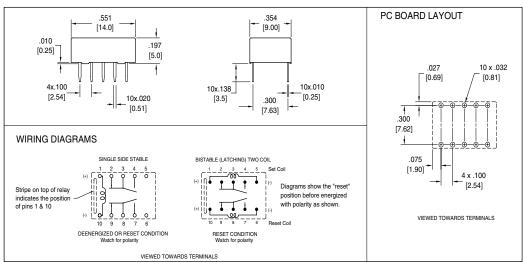
AZ850P2-12

AZ850P2-24

#### **MECHANICAL DATA**

12

24



Dimensions in inches with metric equivalents in parentheses. Tolerance: ±0.010"

9.0

18.0

