AZ847

MICROMINIATURE POLARIZED RELAY

FEATURES

- Microminiature size: Height: .217 inches (5.5 mm); Length: .551 inches (14 mm); Width: .354 inches (9 mm)
- High sensitivity, 79 mW pickup
- Monostable and bistable (latching) 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 file E43203, CSA 73363

CONTACTS

Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 60 W or 62.5 VA Max. switched current: 2 A Max. switched voltage: 220 VDC or 250 VAC Max. carry current: 2 A
Rated Load UL/CSA	0.5 A at 125 VAC res. 2.0 A at 30 VDC res. 0.3 A at 110 VDC res.
Material	Silver palladium; gold clad
Resistance	< 50 milliohms initially

COIL (Polarized)

Power	
At Pickup Voltage (typical)	Single side stable: 70–150 mW Bistable (latching) two coil: 100–150 mW
Max. Continuous Dissipation	700 mW at 20°C (68°F) ambient 530 mW at 40°C (104°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.
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 1 A 30 VDC, Res. 2 x 10^5 at 0.5 A 125 VAC, Res.
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: 0.5 pF Contact set to contact set: 1.5 pF Contact to coil: 1.0 pF
Dielectric Strength (at sea level)	1000 Vrms between contact sets 1000 Vrms across contacts 1,250 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 85°C (185°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.	260°C (500°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	1.2 grams

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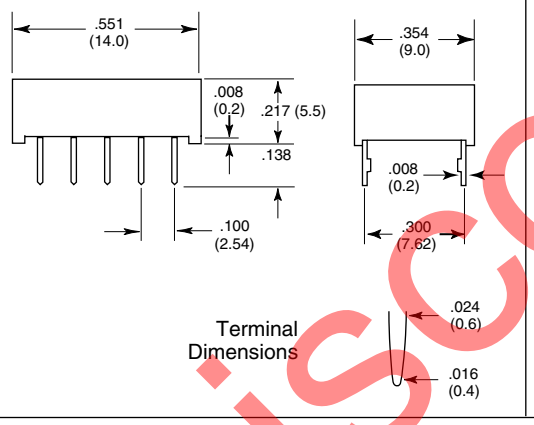
RELAY ORDERING DATA

SINGLE SIDE STABLE				
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%	Must Operate VDC	
3	6.7	64.3	2.3	AZ847–3
5	11.2	178	3.8	AZ847–5
6	13.4	257	4.5	AZ847–6
9	20.1	579	6.8	AZ847–9
12	26.8	1,028	9.0	AZ847–12
24	44.9	2,880	18.0	AZ847–24

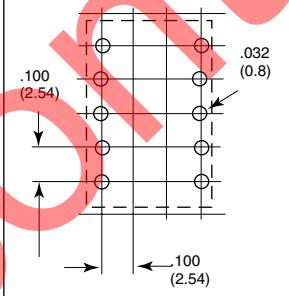
BISTABLE (LATCHING) TWO COIL					
COIL SPECIFICATIONS					ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%		Must Operate VDC	
		Coil I	Coil II		
3	5.6	45	45	2.3	AZ847P2–3
5	9.4	125	125	3.8	AZ847P2–5
6	11.2	180	180	4.5	AZ847P2–6
9	16.8	405	405	6.8	AZ847P2–9
12	22.4	720	720	9.0	AZ847P2–12
24	36.7	1,920	1,920	18.0	AZ847P2–24

MECHANICAL DATA



Terminal Dimensions

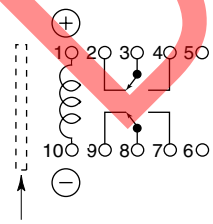
PC BOARD LAYOUT



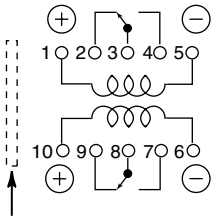
Viewed toward terminals

WIRING DIAGRAMS

SINGLE SIDE STABLE



BISTABLE (LATCHING) TWO COIL



Stripe on top of relay indicates location of pins 1 and 10.

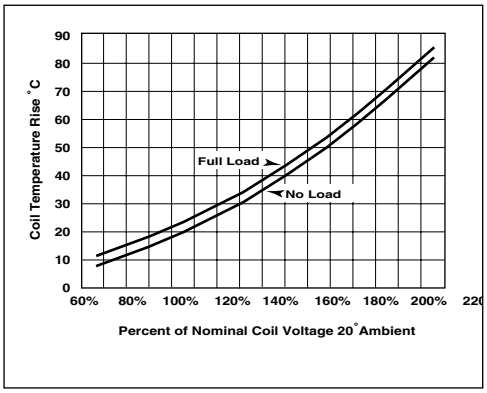
WATCH FOR POLARITY

Viewed toward terminals

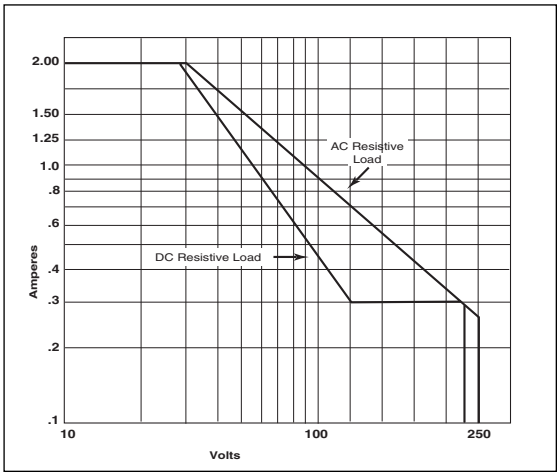
Diagrams show the "reset" position before energized with polarity as shown.

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

Coil Temperature Rise



Maximum Switching Capacity



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