AZ846

MICROMINIATURE POLARIZED RELAY

FEATURES

- Microminiature size: up to 50% less board area than previous generation telecom relays
- High dielectric and surge voltage:
  2.5 KV surge (per Bellcore TA–NWT–001089)
  1.5 KV surge (per FCC Part 68)
  1,000 Vrms, open contacts
- Low power consumption: 79 mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed for automatic wave soldering and cleaning
- UL file E43203; CSA file 700339
- All plastics meet UL94 V–O, 30 min. oxygen index

CONTACTS

Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 60 W or 62.5 VA Max. switched current: 2.0 A Max. switched voltage: 220 VDC or 250 VAC
Rated Load **UL/CSA**	0.5 A at 125 VAC 2.0 A at 30 VDC 0.3 A at 110 VDC
Material	Silver alloy; gold clad
Resistance	< 100 milliohms initially at 6 V, 1 A

COIL (Polarized)

Power	
At Pickup Voltage (typical)	79 mW (3–12 VDC) 113 mW (24 VDC)
Max. Continuous Dissipation	1.0 W at 20°C (68°F) 0.78 W at 40°C (104°F)
Temperature Rise	At nominal coil voltage 18°C (32°F) (3–12 VDC) 25°C (45°F) (24 VDC)
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. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^8 at 3Hz 1 x 10^5 at 0.5 A, 125 VAC, Res. 2 x 10^5 at 1.0 A, 30 VDC, Res.
Operate Time (typical)	2 ms at nominal coil voltage
Release Time (typical)	1 ms at nominal coil voltage (with no coil suppression)
Bounce (typical)	At 10 mA contact current 1 ms at operate or release
Capacitance	< 1 pF at 10 KHz—open contacts < 1 pF at 10 KHz—adjacent contact sets
Dielectric Strength (at sea level)	See table
Dropout	Greater than 10% of nominal coil voltage
Insulation Resistance	10^9 ohms min. at 25°C, 500 VDC, 50% RH
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 95°C (203°F) (3–12 VDC) -40°C (-40°F) to 90°C (194°F) (24 VDC) -40°C (-40°F) to 115°C (239°F)
Vibration	Operational, 20 g, 10–55 Hz Non-destructive, 30 g, 10–55 Hz
Shock	Operational, 50 g min., 11 ms Non-destructive, 100 g min., 11 ms
Max. Solder Temp. Temp./Time	350°C (662°F) for 3 seconds 260°C (500°F) for 10 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	1.8 grams
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.

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3/14/01W

AZ846

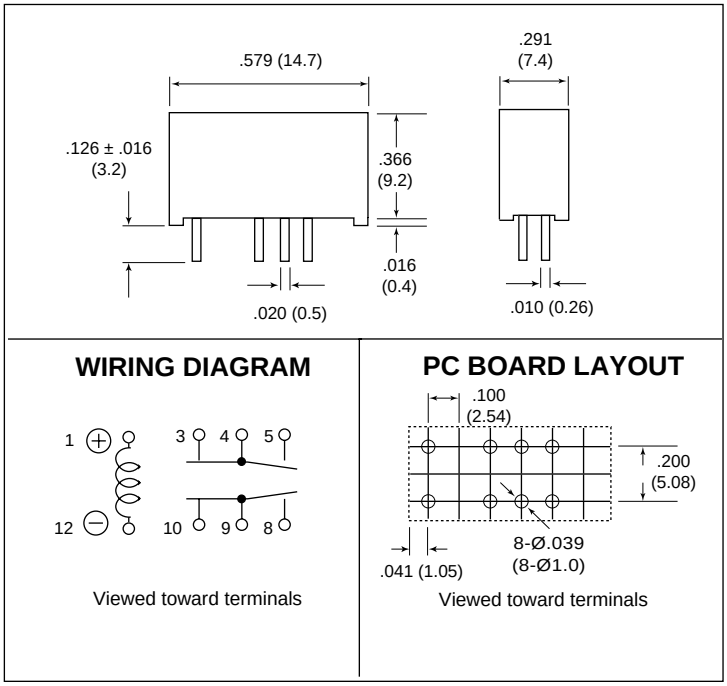
RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%	Must Operate VDC	
3	6.9	64	2.25	AZ846–3
4.5	10.4	145	3.38	AZ846–4
5	11.5	178	3.75	AZ846–5
6	13.8	257	4.5	AZ846–6
9	20.8	579	6.75	AZ846–9
12	27.7	1,028	9.0	AZ846–12
24	46.3	2,880	18.0	AZ846–24

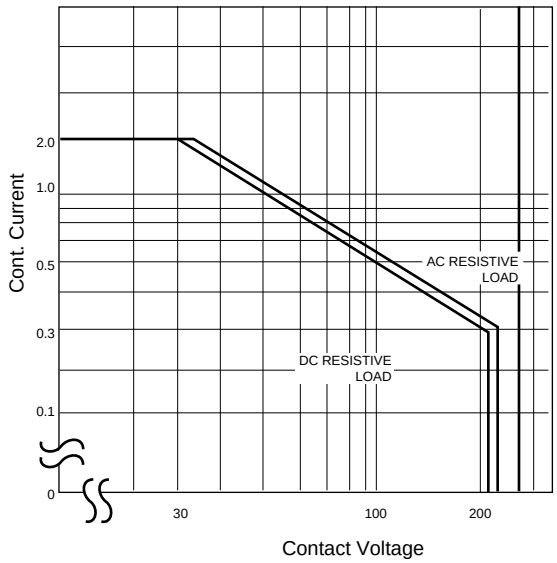
INITIAL DIELECTRIC STRENGTH (minimum)		SURGE		
	VRMS, 1 min.	Peak (V)	Rise Time (μS)	Decay Time* (9μS) (1/2 peak)
Between open contacts	1,000	1,500	10	160
Between contact sets	1,000	1,500	2	160
Between coil and contacts	1,800	2,500	2	10

* Decay time measured from beginning of surge.

Mechanical Data



Maximum Switching Capacity



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

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