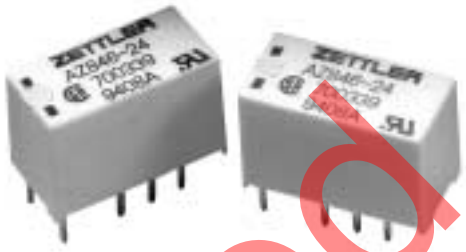
AZ846

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



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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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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.

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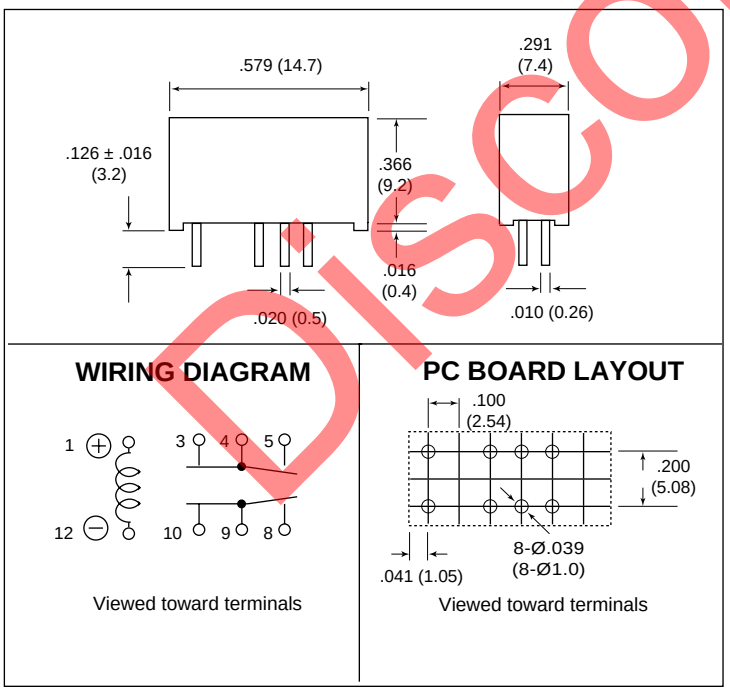
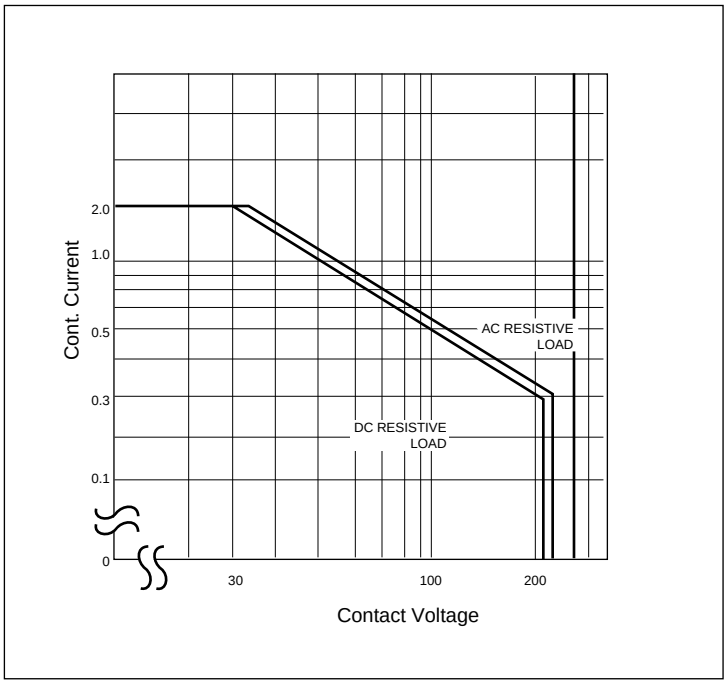
Mechanical Data



Maximum Switching Capacity



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

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3/14/01W
This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.