## 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 file E43203, CSA file 73363

#### CONTACTS

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

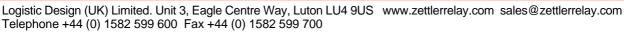
#### COIL (Polarized)

| Power<br>At Pickup Voltage<br>(typical) | Single side stable: 79–142 mW<br>Bistable (latching) single coil: 56–84 mW<br>Bistable (latching) two coil: 113–169 mW |  |  |  |  |
|---|--|--|--|--|--|
| Max. Continuous<br>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.

### ZETTLER electronics





#### GENERAL DATA

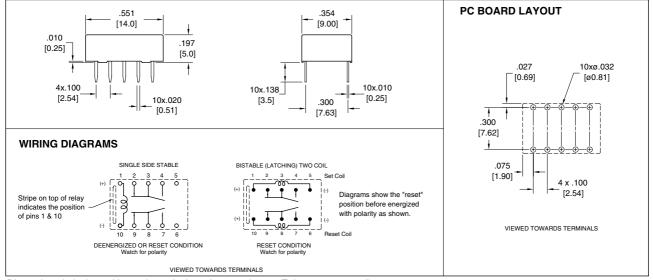
| Life Expectancy<br>Mechanical<br>Electrical | Minimum operations<br>1 x 10 <sup>8</sup><br>2 x 10 <sup>5</sup> at 1 A, 30 VDC<br>1 x 10 <sup>5</sup> at 0.5 A, 125VAC                     |  |  |  |  |
|---|---|--|--|--|--|
| Operate Time (typical)                      | 2 ms at nominal coil voltage  |  |  |  |  |
| Release Time (typical)                      | 1 ms at nominal coil voltage<br>(with no coil suppression)  |  |  |  |  |
| Set Time<br>(bistable versions)             | 2 ms at nominal coil voltage (typical)  |  |  |  |  |
| Reset Time<br>(bistable versions)           | 2 ms at nominal coil voltage (typical)  |  |  |  |  |
| Dropout                                     | Greater than 10% of nominal coil voltage  |  |  |  |  |
| Capacitance                                 | Contact to contact: 0.4 pF<br>Contact set to contact set: 0.2 pF<br>Contact to coil: 0.9 pF   |  |  |  |  |
| Dielectric Strength<br>(at sea level)       | 1000 Vrms between contact sets<br>1000 Vrms across contacts<br>1250 Vrms contact to coil<br>Meets FCC part 68.302 1500 V lightning<br>surge |  |  |  |  |
| Insulation Resistance                       | 1000 megohms min. at 25°C, 500 VDC,<br>50% RH   |  |  |  |  |
| Ambient Temperature<br>Operating<br>Storage | At nominal coil voltage<br>-40°C (-40°F) to 70°C (158°F)<br>-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   |  |  |  |  |

# AZ850.

#### RELAY ORDERING DATA

| SINGLE SIDE STAE    | BLE                    |   |         |                     |             |
|---------------------|------------------------|---|---------|---------------------|-------------|
|                     |                        |   |         |                     |             |
| Nominal Coil<br>VDC | Max. Continuous<br>VDC | CIFICATIONS<br>Coil Resistance<br>± 10% |         | Must Operate<br>VDC |             |
| 3                   | 7.5                    | 64.3                                    |         | 2.1                 | AZ850–3     |
| 4.5                 | 11.25                  | 14                                      | 5.2     | 3.15                | AZ850-4.5   |
| 5                   | 12.5                   | 178                                     | 8       | 3.5                 | AZ850–5     |
| 6                   | 15.0                   | 25                                      | 7       | 4.2                 | AZ850–6     |
| 9                   | 22.5                   | 579                                     | 9       | 6.3                 | AZ850–9     |
| 12                  | 30.0                   | 1,028                                   | 8       | 8.4                 | AZ850–12    |
| 24                  | 48.0                   | 2,880                                   | 0       | 16.8                | AZ850–24    |
| BISTABLE (LATCH     | ING) SINGLE COIL       |   |         |                     |             |
|                     |                        |   |         |                     |             |
| Nominal Coil<br>VDC | Max. Continuous<br>VDC | IFICATIONS<br>Coil Resistance<br>± 10%  |         | Must Operate<br>VDC |             |
| 3                   | 8.7                    | 90                                      |         | 2.1                 | AZ850P1-3   |
| 4.5                 | 13.0                   | 203                                     |         | 3.2                 | AZ850P1-4.5 |
| 5                   | 14.5                   | 250                                     |         | 3.5                 | AZ850P1-5   |
| 6                   | 17.4                   | 360                                     |         | 4.2                 | AZ850P1-6   |
| 9                   | 26.1                   | 81                                      | 10      | 6.3                 | AZ850P1-9   |
| 12                  | 34.8                   | 144                                     | 40      | 8.4                 | AZ850P1-12  |
| 24                  | 57.6                   | 3840                                    |         | 16.8                | AZ850P1-24  |
| BISTABLE (LATCH     | ING) TWO COIL          |   |         |                     |             |
|                     |                        |   |         |                     |             |
| Nominal Coil        | Max. Continuous        | IFICATIONS<br>Coil Resistance ± 10%     |         | Must Operate        |             |
| VDC                 | VDC                    | Coil I                                  | Coil II | VDC                 |             |
| 3                   | 6.0                    | 45                                      | 45      | 2.1                 | AZ850P2-3   |
| 4.5                 | 13.0                   | 102                                     | 102     | 3.2                 | AZ850P2-4.5 |
| 5                   | 10.0                   | 125                                     | 125     | 3.5                 | AZ850P2-5   |
| 6                   | 12.0                   | 180                                     | 180     | 4.2                 | AZ850P2-6   |
| 9                   | 18.0                   | 405                                     | 405     | 6.3                 | AZ850P2-9   |
| 12                  | 24                     | 720                                     | 720     | 8.4                 | AZ850P2-12  |
| 24                  | 40                     | 1,920                                   | 1,920   | 16.8                | AZ850P2-24  |

#### MECHANICAL DATA



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

## ZETTLER electronics

Logistic Design (UK) Limited. Unit 3, Eagle Centre Way, Luton LU4 9US www.zettlerrelay.com sales@zettlerrelay.com Telephone +44 (0) 1582 599 600 Fax +44 (0) 1582 599 700