

# AZ939

## SENSITIVE SUBMINIATURE RELAY

### FEATURES

- Extremely small footprint utilizing only 0.22 square inch of PCB area
- Thin vertical profile only 0.283" wide
- 1 Form A contact with up to 3 Amp switching capability
- High sensitivity, 113 mW pickup
- Dielectric strength 4000 Vrms contact to coil
- Coils to 24 VDC
- Epoxy sealed for automatic wave soldering and cleaning
- UL, CUR file E43203



### CONTACTS

|                              |   |
|------------------------------|---|
| <b>Arrangement</b>           | SPST (1 Form A)   |
| <b>Ratings</b>               | Resistive load:<br>Max. switched power: 90 W or 750 VA<br>Max. switched current: 3 A<br>Max. switched voltage: 150* VDC or 250 VAC<br><br>Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| <b>Rated Load<br/>UL/CSA</b> | 3 A at 250 VAC, general use, 100k cycles<br>3 A at 30 VDC, resistive, 200k cycles<br>1/10 HP at 250 VAC, 100k cycles  |
| <b>Material</b>              | Silver nickel   |
| <b>Resistance</b>            | < 100 milliohms initially<br>(at 6 V, 1 A, voltage drop method)   |

### COIL

|   |  |
|---|--|
| <b>Power<br/>At Pickup Voltage<br/>(typical)</b>            | 113 mW   |
| <b>Max. Continuous<br/>Dissipation<br/>Temperature Rise</b> | 750 mW at 20°C (68°F) ambient<br>26°C (47°F) at nominal coil voltage |
| <b>Temperature</b>  | Max. 105°C (221°F)   |

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Minimum permissible contact load.
4. Specifications subject to change without notice.

### GENERAL DATA

|  |  |
|--|--|
| <b>Life Expectancy<br/>Mechanical<br/>Electrical</b>     | Minimum operations<br>5 million operations<br>1 X 10 <sup>5</sup> at 3 A, 30 VDC or 250 VAC Res. |
| <b>Operate Time (typical)</b>                            | 6 ms at nominal coil voltage   |
| <b>Release Time (typical)</b>                            | 3 ms at nominal coil voltage<br>(with no coil suppression)                                       |
| <b>Dielectric Strength<br/>(at sea level for 1 min.)</b> | 750 Vrms between open contacts<br>4000 Vrms contact to coil                                      |
| <b>Insulation<br/>Resistance</b>                         | 1000 megohms min. at 20°C, 500 VDC,<br>50% RH  |
| <b>Dropout</b>   | Greater than 10% of nominal coil voltage   |
| <b>Ambient Temperature<br/>Operating<br/>Storage</b>     | At nominal coil voltage<br>-40°C (-40°F) to 85°C (185°F)<br>-40°C (-40°F) to 105°C (221°F)       |
| <b>Vibration</b>   | 0.062" DA at 10–55 Hz  |
| <b>Shock</b>   | 10 g   |
| <b>Enclosure</b>   | P.B.T. polyester   |
| <b>Terminals</b>   | Tinned copper alloy, P.C.  |
| <b>Max. Solder Temp.</b>                                 | 270°C (518°F)  |
| <b>Max. Solder Time</b>                                  | 5 seconds  |
| <b>Max. Solvent Temp.</b>                                | 80°C (176°F)   |
| <b>Max. Immersion Time</b>                               | 30 seconds   |
| <b>Weight</b>  | 4 grams  |



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

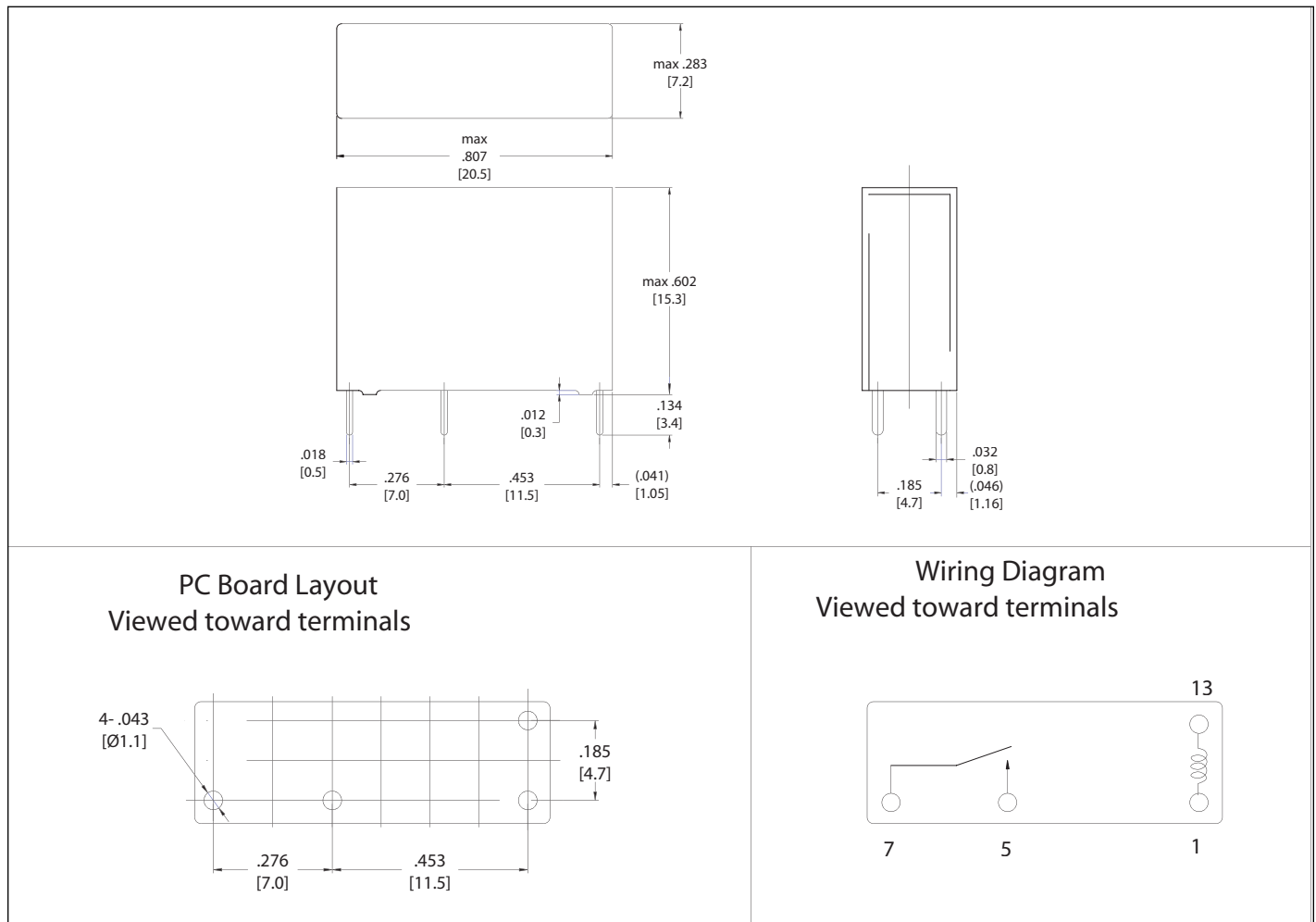
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# AZ939

## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                     |                            |                  |              |
|---------------------|---------------------|----------------------------|------------------|--------------|
| Nominal Coil VDC    | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | ORDER NUMBER |
| 4.5                 | 8.7                 | 101                        | 3.4              | AZ939-4.5    |
| 5                   | 9.7                 | 125                        | 3.8              | AZ939-5      |
| 6                   | 11.6                | 180                        | 4.5              | AZ939-6      |
| 9                   | 17.4                | 405                        | 6.8              | AZ939-9      |
| 12                  | 23.2                | 720                        | 9.0              | AZ939-12     |
| 18                  | 34.8                | 1620                       | 13.5             | AZ939-18     |
| 24                  | 46.5                | 2,880                      | 18.0             | AZ939-24     |

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "



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