

# AZ822

## SUBMINIATURE DIP RELAY

### FEATURES

- Low profile for compact board spacing
- DC coils to 48 VDC
- Life expectancy to 10 million operations
- Standard PC 0.1" grid terminal spacing
- Fits standard 16 pin IC socket
- Epoxy sealed for automatic wave soldering and cleaning
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- UL, CUR file E43203



### CONTACTS

|             |                                                                                                                                                                                          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arrangement | DPDT (2 Form C)<br>Bifurcated crossbar contacts                                                                                                                                          |
| Ratings     | Resistive load:<br>Max. switched power: 60 W or 125 VA<br>Max. switched current: 2 A<br>Max. switched voltage: 220 VDC or 250 VAC<br><b>UL Rating:</b> 1 A at 24 VDC<br>0.5 A at 120 VAC |
| Material    | Silver palladium, gold clad                                                                                                                                                              |
| Resistance  | < 50 milliohms initially                                                                                                                                                                 |

### COIL

|                                                                                               |                                                                                                                   |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Power<br>At Pickup Voltage<br>(typical)<br>Max. Continuous<br>Dissipation<br>Temperature Rise | 98 mW - Standard coils<br>74 mW - Sensitive coils<br>0.94 W at 20°C (68°F)<br>15°C (27°F) at nominal coil voltage |
| Temperature                                                                                   | 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. Relay adjustment may be affected if undue pressure is exerted on relay case.
4. Specifications subject to change without notice.

### GENERAL DATA

|                                                  |                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------|
| Life Expectancy<br>Mechanical<br>Electrical      | Minimum operations<br>1 x 10 <sup>8</sup><br>5 x 10 <sup>5</sup> at 1 A 30 VDC              |
| Operate Time (typical)                           | 5 ms at nominal coil voltage                                                                |
| Release Time (typical)                           | 2 ms at nominal coil voltage<br>(with no coil suppression)                                  |
| Capacitance (max.)                               | Contact to contact: 1.2 pF<br>Contact set to contact set: 1.6 pF<br>Contact to coil: 1.5 pF |
| Bounce<br>(typical)                              | At 10 mA contact current<br>2 ms at operate N.O. side<br>3 ms at operate N.C. side          |
| Dielectric Strength<br>(at sea level for 1 min.) | 1000 Vrms contact to coil<br>1000 Vrms contact to contact<br>1000 Vrms between contact sets |
| Insulation Resistance                            | 1000 megohms min. at 20°C, 500 VDC,<br>50% RH                                               |
| Dropout                                          | Greater than 5% of nominal coil voltage                                                     |
| Ambient Temperature<br>Operating<br>Storage      | At nominal coil voltage<br>-55°C (-67°F) to 90°C (194°F)<br>-55°C (-67°F) to 105°C (221°F)  |
| Vibration                                        | 0.062" DA at 10–55 Hz                                                                       |
| Shock                                            | 20 g                                                                                        |
| Enclosure                                        | P.B.T. polyester (UL94 V-0)                                                                 |
| Terminals                                        | Tinned copper alloy, P.C.                                                                   |
| Max. Solder Temp.                                | 270°C (518°F)                                                                               |
| Max. Solder Time                                 | 5 seconds                                                                                   |
| Max. Solvent Temp.                               | 80°C (176°F)                                                                                |
| Max. Immersion Time                              | 30 seconds                                                                                  |
| Weight                                           | 4.5 grams                                                                                   |



**AMERICAN ZETTLER, INC.**

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

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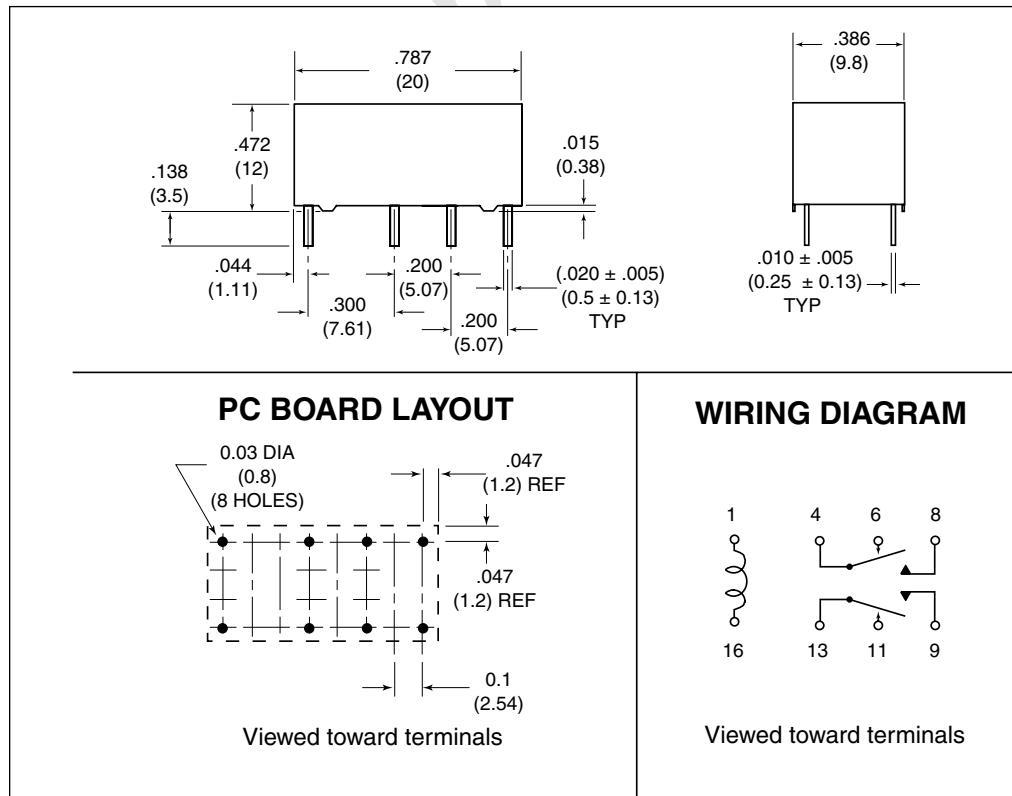
## RELAY ORDERING DATA

| COIL SPECIFICATIONS - STANDARD |                     |                            |                  | ORDER NUMBER  |
|--------------------------------|---------------------|----------------------------|------------------|---------------|
| Nominal Coil VDC               | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC |               |
| 3                              | 6.5                 | 45                         | 2.1              | AZ822-2C-3DE  |
| 5                              | 10.8                | 125                        | 3.5              | AZ822-2C-5DE  |
| 6                              | 13.0                | 180                        | 4.2              | AZ822-2C-6DE  |
| 9                              | 19.5                | 405                        | 6.3              | AZ822-2C-9DE  |
| 12                             | 26.5                | 720                        | 8.4              | AZ822-2C-12DE |
| 24                             | 52.9                | 2880                       | 16.8             | AZ822-2C-24DE |
| 48                             | 103.9               | 11520                      | 33.6             | AZ822-2C-48DE |

| COIL SPECIFICATIONS - SENSITIVE |                     |                            |                  | ORDER NUMBER   |
|---------------------------------|---------------------|----------------------------|------------------|----------------|
| Nominal Coil VDC                | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC |                |
| 3                               | 7.5                 | 60                         | 2.1              | AZ822-2C-3DSE  |
| 5                               | 12.5                | 167                        | 3.5              | AZ822-2C-5DSE  |
| 6                               | 15.0                | 240                        | 4.2              | AZ822-2C-6DSE  |
| 9                               | 22.5                | 540                        | 6.3              | AZ822-2C-9DSE  |
| 12                              | 30.0                | 960                        | 8.4              | AZ822-2C-12DSE |
| 18                              | 40.0                | 1620                       | 12.6             | AZ822-2C-18DSE |
| 24                              | 52.9                | 2880                       | 16.8             | AZ822-2C-24DSE |
| 48                              | 84.9                | 7680                       | 33.6             | AZ822-2C-48DSE |

## MECHANICAL DATA



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



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