

# AZ9481F

## 16 AMP LOW PROFILE POWER RELAY

### FEATURES

- Quick connect and PC terminals
- High power switching (4000 VA)
- High sensitivity, 128 mW pickup
- Low profile (less than .55" height)
- SPST (1 Form A)
- UL Class F (155°C) standard
- Epoxy sealed versions available
- DC coils up to 48 VDC
- UL file E43203, TÜV R50053055



### CONTACTS

|                               |   |
|-------------------------------|---|
| <b>Arrangement</b>            | SPST (1 Form A)   |
| <b>Ratings</b>                | <b>Resistive load:</b>  |
| <b>Standard 1 Form A</b>      | Max. switched power: 300 W, 2500 VA<br>Max. switched current: 10 A<br>Max. switched voltage: 250 VAC / 30 VDC   |
| <b>High Capacity 1 Form A</b> | Max. switch power: 300 W, 4000 VA<br>Max. switch current: 16 A<br>Max. switched voltage: 250 VAC / 30 VDC   |
| <b>Rated Load UL</b>          | Standard 1 Form A<br>10 A at 250 VAC Res. 100k cycles [1][2]<br>10 A at 30 VDC Res. 100k cycles [1][2]<br>TV-5 [1][2]<br><br>High Capacity 1 Form A<br>16 A at 125 VAC Res. 100k cycles [1][2]<br>10 A at 30 VDC Res. 100k cycles [1][2]<br>TV-5 [1][2] |
| <b>TÜV</b>                    | High Capacity 1 Form A<br>16 A at 250 VAC Res. 100k cycles [1][2]<br>8 A at 250 VAC cos phi = 0.4 100k cycles [1][2]<br>10 A at 30 VDC Res. 100k cycles [1][2]  |
| <b>Material</b>               | Silver cadmium oxide [1] or silver tin oxide [2]<br>Gold plating available.   |
| <b>Resistance</b>             | < 100 milliohms initially<br>(6 V, 1 A voltage drop method)   |

### GENERAL DATA

|  |  |
|--|--|
| <b>Life Expectancy</b><br><b>Mechanical</b><br><b>Electrical</b> | Minimum operations<br>1 x 10 <sup>7</sup><br>1 x 10 <sup>5</sup> 10 A 250 VAC Res.   |
| <b>Operate Time (typical)</b>                                    | 10 ms at nominal coil voltage  |
| <b>Release Time (typical)</b>                                    | 5 ms at nominal coil voltage<br>(with no coil suppression)   |
| <b>Dielectric Strength (at sea level for 1 min.)</b>             | 2500 Vrms coil to contact<br>1000 Vrms contact to contact  |
| <b>Insulation Resistance</b>                                     | 100 megohms min. at 20°C, 500 VDC,<br>50% RH   |
| <b>Dropout</b>   | Greater than 10% of nominal coil voltage   |
| <b>Ambient Temperature</b><br><b>Operating</b><br><b>Storage</b> | At nominal coil voltage<br>-40°C (-40°F) to 85°C (185°F)<br>-40°C (-40°F) to 155°C (333°F)   |
| <b>Vibration</b>   | 0.062" DA at 10–55 Hz  |
| <b>Shock</b>   | 10 g operational, 100g destructive   |
| <b>Enclosure</b>   | P.B.T. polyester   |
| <b>Terminals</b>   | Tinned copper alloy, P.C. with quick connect tabs<br>Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| <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>  | 8 grams  |

### COIL

|  |                                     |
|--|-------------------------------------|
| <b>Power At Pickup Voltage (typical)</b> | 128 mW                              |
| <b>Max. Continuous Dissipation</b>       | 1.34 W at 20°C (68°F)               |
| <b>Temperature Rise</b>                  | 13°C (23°F) at nominal coil voltage |
| <b>Temperature</b>                       | Max. 155°C (333°F)                  |

### NOTES

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



**AMERICAN ZETTLER, INC.**

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12/14/05W

# AZ9481F

## RELAY ORDERING DATA

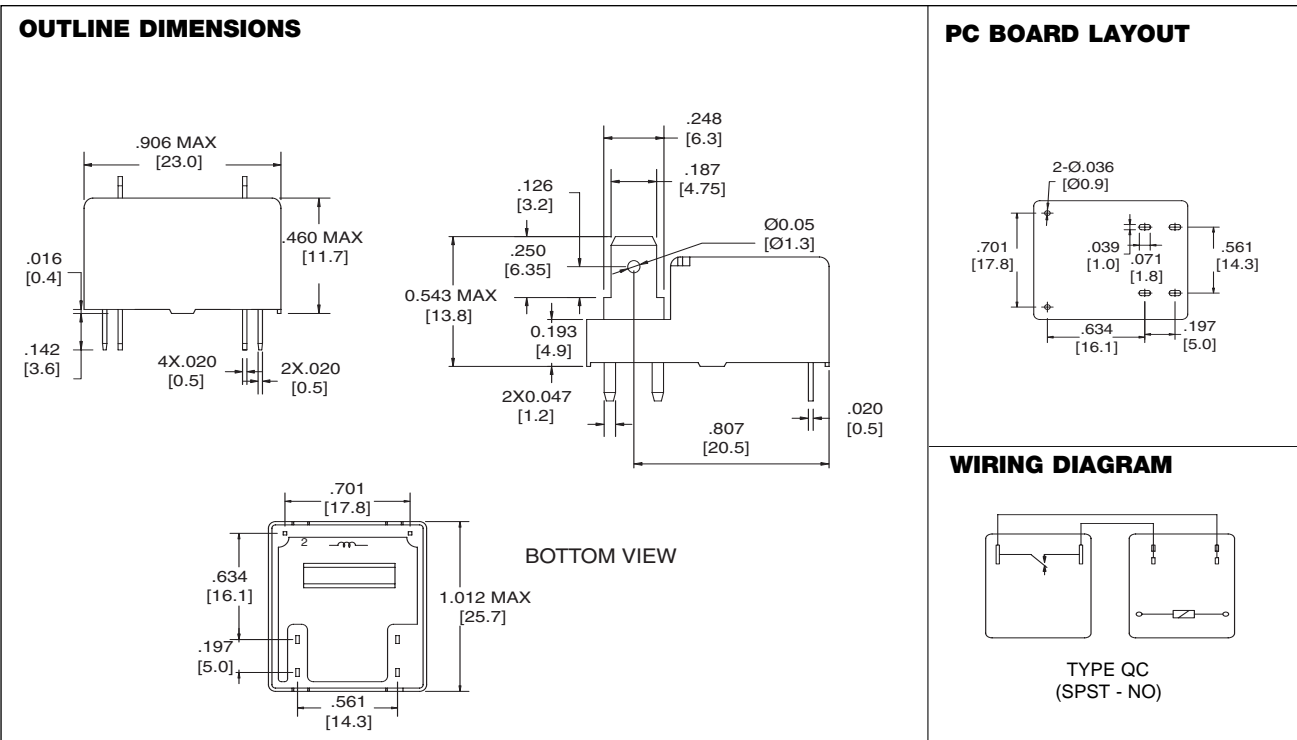
| COIL SPECIFICATIONS SPST-NO (1 Form A) |                  |                     |                            | ORDER NUMBER*  |                             |
|--|------------------|---------------------|----------------------------|----------------|-----------------------------|
| Nominal Coil VDC                       | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | AgCdO Contacts | AgSnO <sub>2</sub> Contacts |
| 5                                      | 4                | 13.4                | 125                        | AZ9481F-1A-5D  | AZ9481F-1AE-5D              |
| 6                                      | 4.8              | 16.1                | 180                        | AZ9481F-1A-6D  | AZ9481F-1AE-6D              |
| 9                                      | 7.2              | 24.1                | 405                        | AZ9481F-1A-9D  | AZ9481F-1AE-9D              |
| 12                                     | 9.6              | 32.2                | 720                        | AZ9481F-1A-12D | AZ9481F-1AE-12D             |
| 18                                     | 14.4             | 48.3                | 1620                       | AZ9481F-1A-18D | AZ9481F-1AE-18D             |
| 24                                     | 19.2             | 64.4                | 2880                       | AZ9481F-1A-24D | AZ9481F-1AE-24D             |
| 48                                     | 38.4             | 128.8               | 11520                      | AZ9481F-1A-48D | AZ9481F-1AE-48D             |

\*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts.

| COIL SPECIFICATIONS SPST-NO (1 Form A) - HIGH CAPACITY |                  |                     |                            | ORDER NUMBER*   |                             |
|--|------------------|---------------------|----------------------------|-----------------|-----------------------------|
| Nominal Coil VDC                                       | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | AgCdO Contacts  | AgSnO <sub>2</sub> Contacts |
| 5  | 4                | 13.4                | 125                        | AZ9481F-1AT-5D  | AZ9481F-1AET-5D             |
| 6  | 4.8              | 16.1                | 180                        | AZ9481F-1AT-6D  | AZ9481F-1AET-6D             |
| 9  | 7.2              | 24.1                | 405                        | AZ9481F-1AT-9D  | AZ9481F-1AET-9D             |
| 12   | 9.6              | 32.2                | 720                        | AZ9481F-1AT-12D | AZ9481F-1AET-12D            |
| 18   | 14.4             | 48.3                | 1620                       | AZ9481F-1AT-18D | AZ9481F-1AET-18D            |
| 24   | 19.2             | 64.4                | 2880                       | AZ9481F-1AT-24D | AZ9481F-1AET-24D            |
| 48   | 38.4             | 128.8               | 11520                      | AZ9481F-1AT-48D | AZ9481F-1AET-48D            |

\*Add suffix "E" for epoxy sealed version. Add suffix "A" for gold plated contacts.

## MECHANICAL DATA



Dimensions in inch with millimeters in brackets below. Tolerance:  $\pm .010$ "



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