

# AZ6961

## 10 AMP SUBMINIATURE POWER RELAY

### FEATURES

- High sensitivity, 120 mW pickup
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 8 mm
- 10 Amp switching capability
- Class B insulation standard, Class F version available
- Epoxy sealed version for automatic wave soldering and cleaning available
- UL, CUR file E44211
- VDE 131637ÜG



### CONTACTS

|             |  |
|-------------|--|
| Arrangement | SPDT (1 Form C)<br>SPST (1 Form A)   |
| Ratings     | Resistive load:<br><br>Max. switched power: 240 W or 2500 VA<br>Max. switched current: 10 A<br>Max. switched voltage: 240* VDC or 440 VAC<br><b>UL, CUR Rating:</b> 10 A at 250 VAC resistive [1]<br>8 A at 30 VDC/250 VAC [1]<br>8 A at 30 VDC/250 VAC,<br>100k cycles [2]<br>B300 Pilot Duty [1]<br>R300 Pilot Duty [1]<br>1/4 HP at 125 VAC [1]<br>1/2 HP at 250 VAC [1]<br><br><b>VDE Rating:</b> 8 A at 250 VAC<br>*Note: if switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Material    | Silver cadmium oxide (AgCdO) [1]<br>Silver tin oxide (AgSnO <sub>2</sub> ) [2]<br>Gold plating available   |
| Resistance  | < 100 milliohms initially  |

### COIL

|   |  |
|---|--|
| Power<br>At Pickup Voltage<br>(typical) | 120 mW   |
| Max. Continuous<br>Dissipation          | 1.2 W at 20°C (68°F) ambient                             |
| Temperature Rise                        | 20°C (36°F) at nominal coil voltage                      |
| Temperature                             | Max. 130°C (266°F) Class B<br>Max. 155°C (311°F) Class F |

### GENERAL DATA

|  |   |
|--|---|
| Life Expectancy<br>Mechanical<br>Electrical      | Minimum operations<br>10 million<br>3 X 10 <sup>5</sup> at 8 A 240 VAC res.   |
| Operate Time (typical)                           | 7 ms at nominal coil voltage  |
| Release Time (typical)                           | 3 ms at nominal coil voltage<br>(with no coil suppression)  |
| Dielectric Strength<br>(at sea level for 1 min.) | 5000 Vrms coil to contact<br>1000 Vrms between open contacts  |
| Insulation<br>Resistance                         | 1000 megohms min. at 20°C, 500 VDC,<br>50% RH   |
| Dropout  | Greater than 10% of nominal coil voltage  |
| Ambient Temperature<br>Operating<br>Storage      | At nominal coil voltage<br>-40°C (-40°F) to 100°C (212°F)<br>-40°C (-40°F) to 130°C (266°F) Class B<br>-40°C (-40°F) to 155°C (311°F) Class F |
| Vibration  | Break Contact: 5g at 10...500 Hz<br>Make Contact: 20g at 10...500 Hz  |
| Shock  | 10 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   | 8 grams   |

### 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.
4. Class F version not VDE approved



**AMERICAN ZETTLER, INC.**

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2/17/05W

# AZ6961

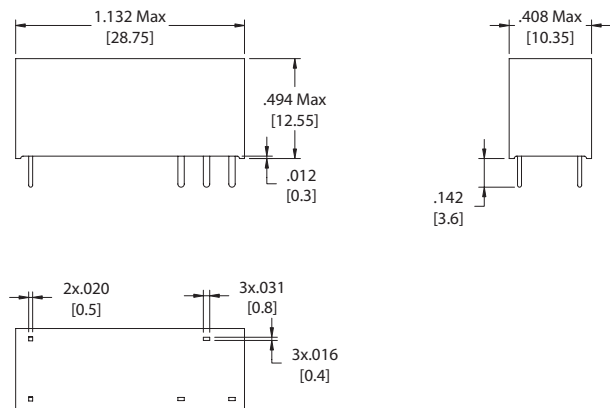
## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                     |                 |                  | ORDER NUMBER*      |                 |
|---------------------|---------------------|-----------------|------------------|--------------------|-----------------|
| Nominal Coil VDC    | Max. Continuous VDC | Coil Resistance | Must Operate VDC | 1 Form A (SPST-NO) | 1 Form C (SPDT) |
| 5                   | 11.6                | 113 ± 10%       | 3.5              | AZ6961-1A-5D       | AZ6961-1C-5D    |
| 6                   | 14.0                | 164 ± 10%       | 4.2              | AZ6961-1A-6D       | AZ6961-1C-6D    |
| 12                  | 27.2                | 617 ± 10%       | 8.4              | AZ6961-1A-12D      | AZ6961-1C-12D   |
| 24                  | 53.1                | 2350 ± 10%      | 16.8             | AZ6961-1A-24D      | AZ6961-1C-24D   |
| 48                  | 107.3               | 9600 ± 15%      | 33.6             | AZ6961-1A-48D      | AZ6961-1C-48D   |
| 60                  | 122.4               | 12500 ± 15%     | 42.0             | AZ6961-1A-60D      | AZ6961-1C-60D   |

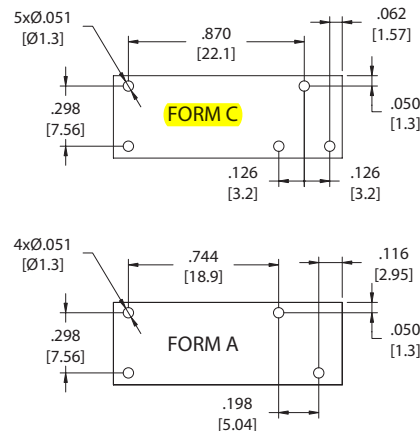
\*Add "E" to "-1A" or "-1C" for AgSnO<sub>2</sub> contacts. Add suffix "E" for sealed version. Add suffix "A" for gold plated contacts. Add suffix "F" for Class F version.

## MECHANICAL DATA

### FORM C VERSION

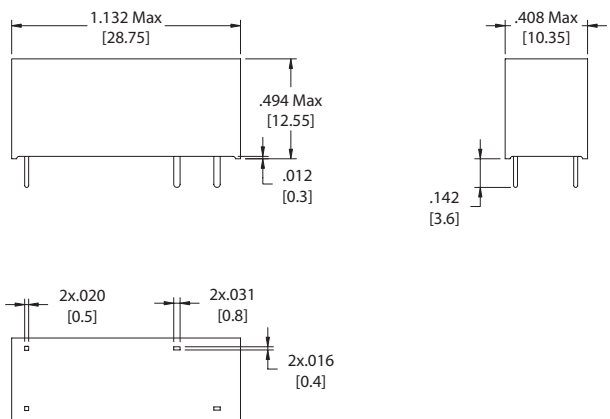


### PC BOARD LAYOUT

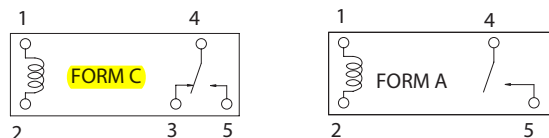


VIEWED TOWARD TERMINALS

### FORM A VERSION



### CIRCUIT DIAGRAM



VIEWED TOWARD TERMINALS

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"



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