

# AZ697

## 10 AMP MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- 10 Amp switching — single pole contacts
- UL TV-5
- Isolation spacing greater than 8mm (1 Form A)  
6mm (1 Form C)
- Epoxy sealed version available
- UL, CUR file E44211
- TÜV file R9659061



### CONTACTS

|                               |  |
|-------------------------------|--|
| <b>Arrangement</b>            | SPST (1 Form A)<br>SPDT (1 Form C)   |
| <b>Ratings</b>                | Resistive load:<br>Max. switched power: 300 W or 2500 VA<br>Max. switched current: 10 A<br>Max. switched voltage: 150 VDC* or 380 VAC<br>* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| <b>Rated Load<br/>UL, CUR</b> | TV-5 120 AC<br>10 A 277 VAC<br>10 A 30 VDC resistive<br>1/3 HP 250 VAC   |
| <b>TÜV</b>                    | 1/4 HP 125 VAC N. O.<br>10 A 250 VAC, 30 VDC resistive, 100k cycles  |
| <b>Material</b>               | Silver cadmium oxide   |
| <b>Resistance</b>             | < 50 milliohms initially   |

### GENERAL DATA

|  |  |
|--|--|
| <b>Life Expectancy<br/>Mechanical<br/>Electrical</b>     | Minimum operations<br>1 x 10 <sup>7</sup><br>1 x 10 <sup>5</sup> at 10 A 250 VAC Res.      |
| <b>Operate Time (typical)</b>                            | 8 ms at nominal coil voltage   |
| <b>Release Time (typical)</b>                            | 5 ms at nominal coil voltage<br>(with no coil suppression)                                 |
| <b>Dielectric Strength<br/>(at sea level for 1 min.)</b> | 5000 Vrms coil to contact<br>1000 Vrms between open contacts                               |
| <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" (1.5 mm) 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>  | 18 grams   |
| <b>Packing unit in pcs</b>                               | 50 per plastic tray / 500 per carton box   |

### COIL

|  |                                  |
|--|----------------------------------|
| <b>Power<br/>At Pickup Voltage<br/>(typical)</b> | 257 mW                           |
| <b>Max. Continuous<br/>Dissipation</b>           | 1.9 W at 20°C (68°F) ambient     |
| <b>Temperature Rise</b>                          | 34°C (61°F) nominal coil voltage |
| <b>Temperature</b>                               | Max. 130°C (266°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.

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## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                  |                     |                     | ORDER NUMBER* |               |
|---------------------|------------------|---------------------|---------------------|---------------|---------------|
| Nominal Coil VDC    | Must Operate VDC | Max. Continuous VDC | Coil Resistance Ohm | Form A (SPST) | Form C (SPDT) |
| 3                   | 2.1              | 5.7                 | 17 ±10%             | AZ697-1A-3D   | AZ697-1C-3D   |
| 5                   | 3.5              | 9.4                 | 47 ±10%             | AZ697-1A-5D   | AZ697-1C-5D   |
| 6                   | 4.2              | 11.4                | 68 ±10%             | AZ697-1A-6D   | AZ697-1C-6D   |
| 9                   | 6.3              | 17.4                | 160 ±10%            | AZ697-1A-9D   | AZ697-1C-9D   |
| 12                  | 8.4              | 22.8                | 275 ±10%            | AZ697-1A-12D  | AZ697-1C-12D  |
| 18                  | 12.6             | 27.9                | 650 ±10%            | AZ697-1A-18D  | AZ697-1C-18D  |
| 24                  | 16.8             | 45.7                | 1,100 ±15%          | AZ697-1A-24D  | AZ697-1C-24D  |
| 48                  | 33.6             | 89.0                | 4,170 ±15%          | AZ697-1A-48D  | AZ697-1C-48D  |
| 60                  | 42.0             | 115.3               | 7,000 ±15%          | AZ697-1A-60D  | AZ697-1C-60D  |
| 110 **              | 79.3             | 170.5               | 22,900 ±15%         | AZ697-1A-110D | AZ697-1C-110D |

\*Add suffix "E" for epoxy sealed version. \*\* 110VDC coil not TÜV approved.

## MECHANICAL DATA

### Form A and C

| Terminal No. | Dimensions Tol.: ± 0.005 (0.13) |
|--------------|---------------------------------|
| 1,2,3,5      | 0.018 (0.457) x 0.038 (0.965)   |
| 4            | 0.011 (0.279) x 0.038 (0.965)   |

### PC BOARD LAYOUT

Viewed toward terminals

### WIRING DIAGRAMS

#### Form A

#### Form C

Viewed toward terminals

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

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2005-03-08