

# AZ692/AZ693

## 10 AMP MINIATURE POWER RELAY

### FEATURES

- Isolation spacing greater than 8 mm
- Dielectric strength 4000 Vrms coil to contact
- Approvals/Standards include UL, VDE, IEC
- Single pole — Forms A, B, C available
- 10 Amp switching
- Life expectancy to 30 million operations
- Epoxy sealed version for automatic wave soldering and cleaning
- UL, CUR file E44211; VDE 40018299



### CONTACTS

|             |                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arrangement | SPDT (1 Form C)<br>SPST (1 Form A and 1 Form B)                                                                                                                                                                                                                                                                                                                                            |
| Ratings     | Resistive load:<br>Max. switched power: 300 W or 2500 VA<br>Max. switched current: 10 A; 64 A for 2 ms<br>Max. switched voltage: 150* VDC or 380 VAC<br><b>UL Rating</b><br>10 A at 24 VDC or 115 VAC<br>1/4 HP 120 VAC motor load<br>10 A at 250 VAC<br>B 300 pilot duty<br>* If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Material    | Silver cadmium oxide                                                                                                                                                                                                                                                                                                                                                                       |
| Resistance  | < 30 milliohms initially<br>(at rated current, voltage drop method)                                                                                                                                                                                                                                                                                                                        |

### COIL

|                                                                                         |                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power<br>At Pickup Voltage (typical)<br>Max. Continuous Dissipation<br>Temperature Rise | Standard coil: 337 mW<br>Sensitive coil: 234 mW<br>1.9 W at 20°C (68°F) ambient<br>1.4 W at 40°C (104°F) ambient<br>Standard: 40°C (72°F) at nominal coil voltage<br>Sensitive: 26°C (47°F) at nominal coil voltage |
| Temperature                                                                             | Max. 110°C (230°F)                                                                                                                                                                                                  |

### GENERAL DATA

|                                                  |                                                                                                                                                        |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Life Expectancy<br>Mechanical<br>Electrical      | Minimum operations<br>30 million operations<br>1 x 10 <sup>5</sup> at 10 A, 30 VDC or 115 VAC<br>2 x 10 <sup>5</sup> at 8 A, 250 VAC                   |
| Operate Time (typical)                           | 6 ms at nominal coil voltage                                                                                                                           |
| Release Time (typical)                           | 2 ms at nominal coil voltage<br>(with no coil suppression)                                                                                             |
| Dielectric Strength<br>(at sea level for 1 min.) | 4000 Vrms coil to contact<br>1000 Vrms between open contacts                                                                                           |
| Insulation Resistance                            | 10,000 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>Standard: -55°C (-67°F) to 70°C (158°F)<br>Sensitive: -55°C (-67°F) to 80°C (176°F)<br>Both: -55°C (-67°F) to 110°C (230°F) |
| Vibration                                        | 0.062" DA at 10–55 Hz                                                                                                                                  |
| Shock                                            | 20 g                                                                                                                                                   |
| Enclosure                                        | P.B.T. polyester                                                                                                                                       |
| 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                                           | 17 grams                                                                                                                                               |

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

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## INTERNATIONAL APPROVALS

|                                              |                                                                                                                                                                                                     |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Passed International Electrical Code IEC 380 |                                                                                                                                                                                                     |
| <b>Germany</b>                               | VDE 0860/8.81 paragraphs 10, 14<br>VDE 0806/8.81 paragraphs 7, 11, 15, 16, 29<br>VDE 0631/9.77 paragraphs 9, 12, 14<br>VDE 0730/T.1/3.72 paragraph 22<br>VDE 0435/9.72 (with production monitoring) |
| <b>U.S.A.</b>                                | UL File E44211                                                                                                                                                                                      |

## RELAY ORDERING DATA: Single Pole .138 Spacing

| STANDARD RELAYS: 1 Form C (SPDT) |                     |                            |                  |               |              |
|----------------------------------|---------------------|----------------------------|------------------|---------------|--------------|
| COIL SPECIFICATIONS              |                     |                            |                  | ORDER NUMBER* |              |
| Nominal Coil VDC                 | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed      | Sealed       |
| 5                                | 8                   | 38                         | 3.5              | AZ692-125-2   | AZ2692-125-2 |
| 6                                | 10                  | 58                         | 4.2              | AZ692-112-2   | AZ2692-112-2 |
| 12                               | 19                  | 215                        | 8.4              | AZ692-08-2    | AZ2692-08-2  |
| 24                               | 35                  | 740                        | 16.8             | AZ692-560-2   | AZ2692-560-2 |
| 48                               | 74                  | 3,200                      | 33.6             | AZ692-04-2    | AZ2692-04-2  |

| SENSITIVE RELAYS: 1 Form C (SPDT) |                     |                            |                  |               |               |
|-----------------------------------|---------------------|----------------------------|------------------|---------------|---------------|
| COIL SPECIFICATIONS               |                     |                            |                  | ORDER NUMBER* |               |
| Nominal Coil VDC                  | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed      | Sealed        |
| 5                                 | 8                   | 47                         | 3.5              | AZ692-118-52  | AZ2692-118-52 |
| 6                                 | 10                  | 80                         | 4.2              | AZ692-010-52  | AZ2692-010-52 |
| 12                                | 21                  | 330                        | 8.4              | AZ692-071-52  | AZ2692-071-52 |
| 24                                | 41                  | 1,200                      | 16.8             | AZ692-052-52  | AZ2692-052-52 |
| 48                                | 80                  | 4,700                      | 33.6             | AZ692-518-52  | AZ2692-518-52 |

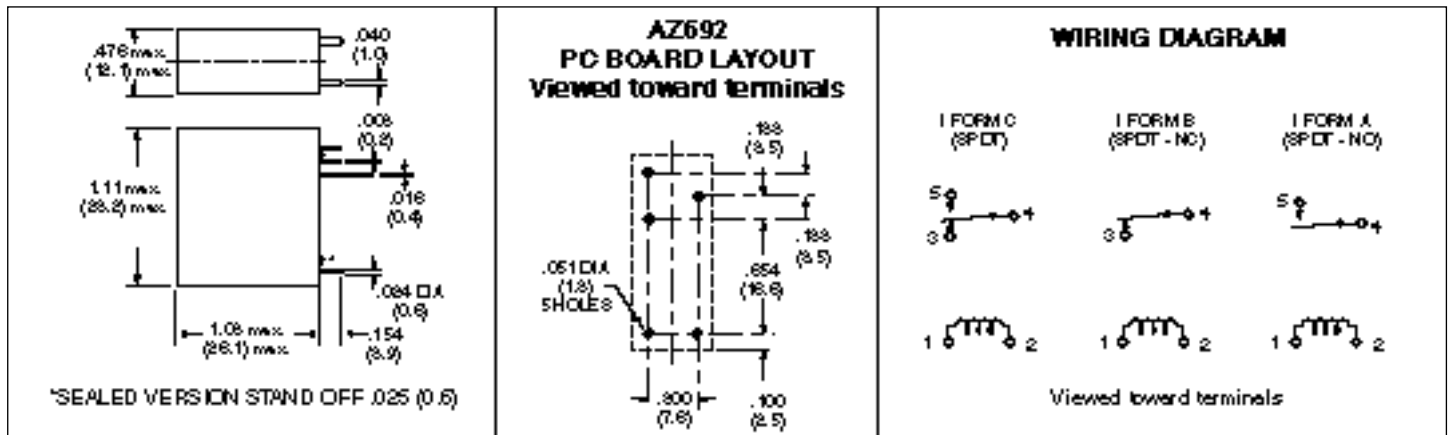
\*Substitute "4 or 54," "6 or 56" in place of "2 or 52" to indicate 1 Form A and 1 Form B respectively.

## HARDWARE ORDERING DATA – AZ692†

| DESCRIPTION | ORDER NUMBER | DESCRIPTION | ORDER NUMBER |
|-------------|--------------|-------------|--------------|
| Socket      | ST482-U1     | Retainer    | ST482-2      |

† See following pages for diagram

## MECHANICAL DATA



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

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# AZ692/AZ693

## RELAY ORDERING DATA: Single Pole .100 Spacing

| STANDARD RELAYS: 1 Form C (SPDT) |                     |                            |                  |               |              |
|----------------------------------|---------------------|----------------------------|------------------|---------------|--------------|
| COIL SPECIFICATIONS              |                     |                            |                  | ORDER NUMBER* |              |
| Nominal Coil VDC                 | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed      | Sealed       |
| 5                                | 8                   | 38                         | 3.5              | AZ693-125-2   | AZ2693-125-2 |
| 6                                | 10                  | 58                         | 4.2              | AZ693-112-2   | AZ2693-112-2 |
| 12                               | 19                  | 215                        | 8.4              | AZ693-08-2    | AZ2693-08-2  |
| 24                               | 35                  | 740                        | 16.8             | AZ693-560-2   | AZ2693-560-2 |
| 48                               | 74                  | 3,200                      | 33.6             | AZ693-04-2    | AZ2693-04-2  |

| SENSITIVE RELAYS: 1 Form C (SPDT) |                     |                            |                  |               |               |
|-----------------------------------|---------------------|----------------------------|------------------|---------------|---------------|
| COIL SPECIFICATIONS               |                     |                            |                  | ORDER NUMBER* |               |
| Nominal Coil VDC                  | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed      | Sealed        |
| 5                                 | 8                   | 47                         | 3.5              | AZ693-118-52  | AZ2693-118-52 |
| 6                                 | 10                  | 80                         | 4.2              | AZ693-010-52  | AZ2693-010-52 |
| 12                                | 21                  | 330                        | 8.4              | AZ693-071-52  | AZ2693-071-52 |
| 24                                | 41                  | 1,200                      | 16.8             | AZ693-052-52  | AZ2693-052-52 |
| 48                                | 80                  | 4,700                      | 33.6             | AZ693-518-52  | AZ2693-518-52 |

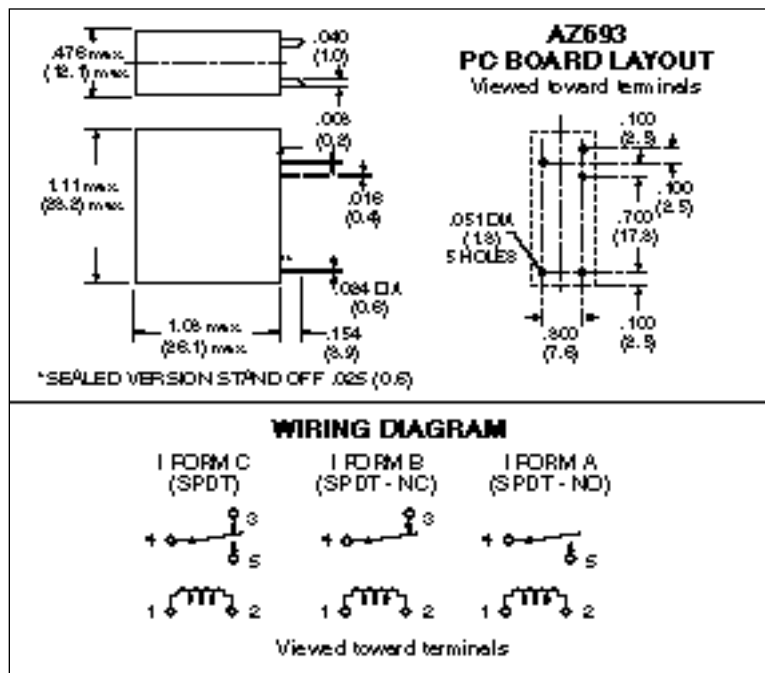
\*Substitute "4 or 54," "6 or 56" in place of "2 or 52" to indicate 1 Form A and 1 Form B respectively.

## HARDWARE ORDERING DATA – AZ693†

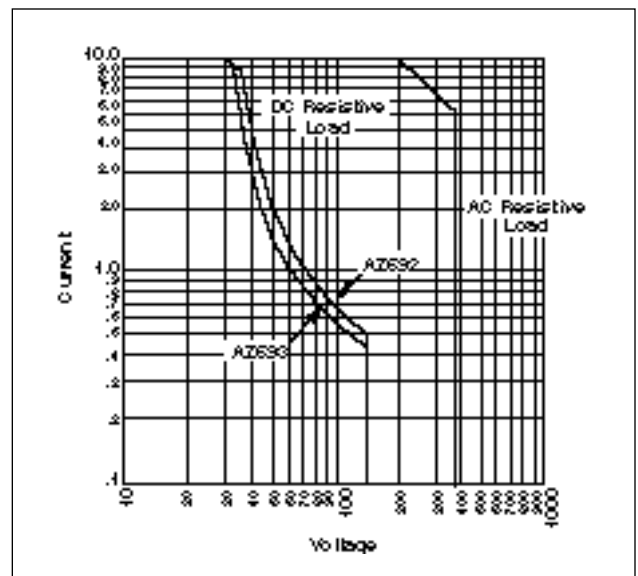
| DESCRIPTION | ORDER NUMBER | DESCRIPTION | ORDER NUMBER |
|-------------|--------------|-------------|--------------|
| Socket      | ST483-U1     | Retainer    | ST482-2      |

† See following pages for diagram

## MECHANICAL DATA



## MAXIMUM SWITCHING CAPACITY



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

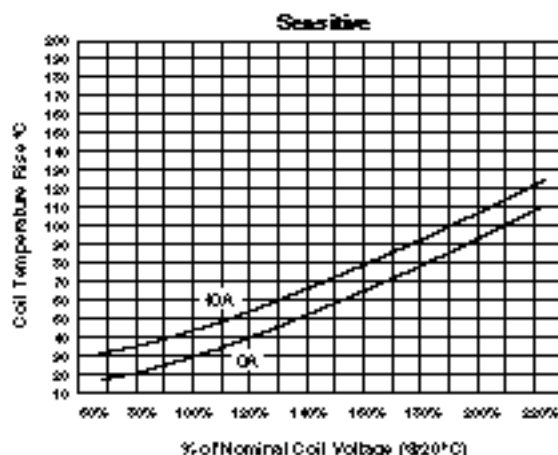
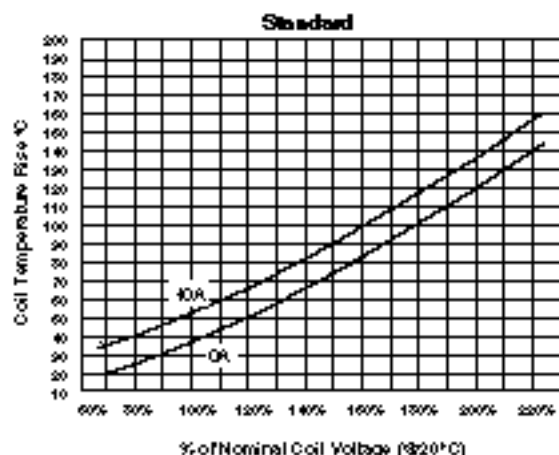
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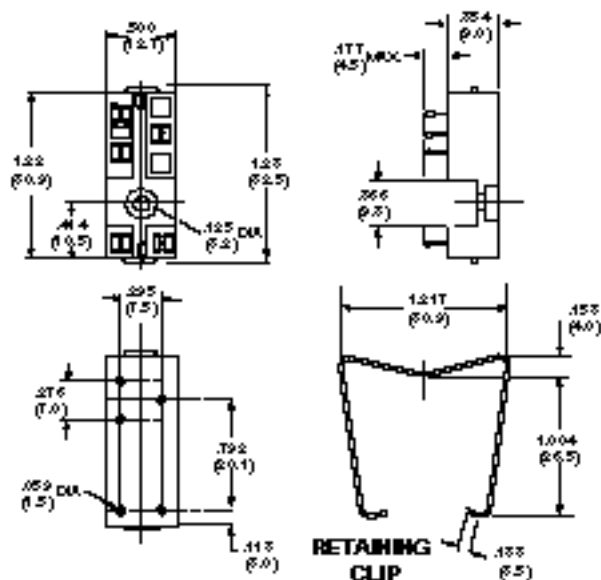
# AZ692/AZ693

## Coil Temperature Rise

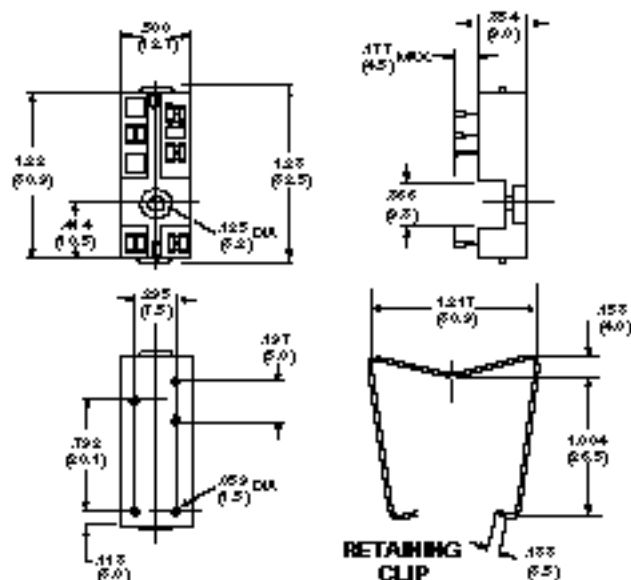


## HARDWARE SPECIFICATIONS

ST 462-U1 For use with AZ692 and AZ2692 only)



ST 463-U1 For use with AZ693 and AZ2693 only)



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

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