

# AZ9201

## ULTRA-SENSITIVE SUBMINIATURE RELAY

### FEATURES

- Extremely small footprint utilizing only 0.16 square inch (108 square mm) of PCB area
- Thin vertical profile only 0.2 inch (5.08mm) wide
- Slim SIP package
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58mW pickup
- Dielectric strength 2000Vrms contact to coil
- UL, CUR file E43203



### CONTACTS

|                    |                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Arrangement</b> | SPST (1 Form A), single button contact                                                                                                         |
| <b>Ratings</b>     | Resistive load:<br>Max. switched power: 150W or 1250VA<br>Max. switched current: 5A<br>Max. switched voltage: 110VDC* or 250VAC                |
| <b>UL Rating:</b>  | 5A at 30VDC or 250VAC                                                                                                                          |
| <b>VDE</b>         | 5A at 30VDC or 250VAC<br><br>Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| <b>Material</b>    | Silver alloy with gold clad                                                                                                                    |
| <b>Resistance</b>  | < 50 milliohms initially<br>(10mA, 6VDC method)                                                                                                |

### COIL

|                                    |                                                                                                       |
|------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Power</b>                       |                                                                                                       |
| <b>At Pickup Voltage (typical)</b> | 58 mW (5-18 V and 24 V sensitive coils)<br>88 mW (24 V coil)                                          |
| <b>Max. Continuous Dissipation</b> | 1.3 W at 20°C (68°F) ambient                                                                          |
| <b>Temperature Rise</b>            | 12°C (22°F) at nominal coil voltage (5-18 V coils)<br>17°C (31°F) at nominal coil voltage (24 V coil) |
| <b>Temperature</b>                 | Max. 115°C (239°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.

### GENERAL DATA

|                                                      |                                                              |
|------------------------------------------------------|--------------------------------------------------------------|
| <b>Life Expectancy</b>                               | Minimum operations                                           |
| <b>Mechanical</b>                                    | 20 million operations                                        |
| <b>Electrical</b>                                    | 1 X 10 <sup>5</sup> at 5A, 30VDC or 250VAC                   |
| <b>Operate Time (typical)</b>                        | 10ms at nominal coil voltage                                 |
| <b>Release Time (typical)</b>                        | 5ms at nominal coil voltage<br>(with no coil suppression)    |
| <b>Dielectric Strength (at sea level for 1 min.)</b> | 1000 Vrms between open contacts<br>2000 Vrms contact to coil |
| <b>Insulation Resistance</b>                         | 1000 megohms min. at 20°C, 500VDC,<br>50% RH                 |
| <b>Dropout</b>                                       | Greater than 5% of nominal coil voltage                      |
| <b>Ambient Temperature</b>                           | At nominal coil voltage                                      |
| <b>Operating</b>                                     | -40°C (-40°F) to 85°C (185°F)                                |
| <b>Storage</b>                                       | -40°C (-40°F) to 115°C (239°F)                               |
| <b>Vibration</b>                                     | 0.062" DA at 10–55 Hz                                        |
| <b>Shock</b>                                         | 15 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>                                        | 3 grams                                                      |

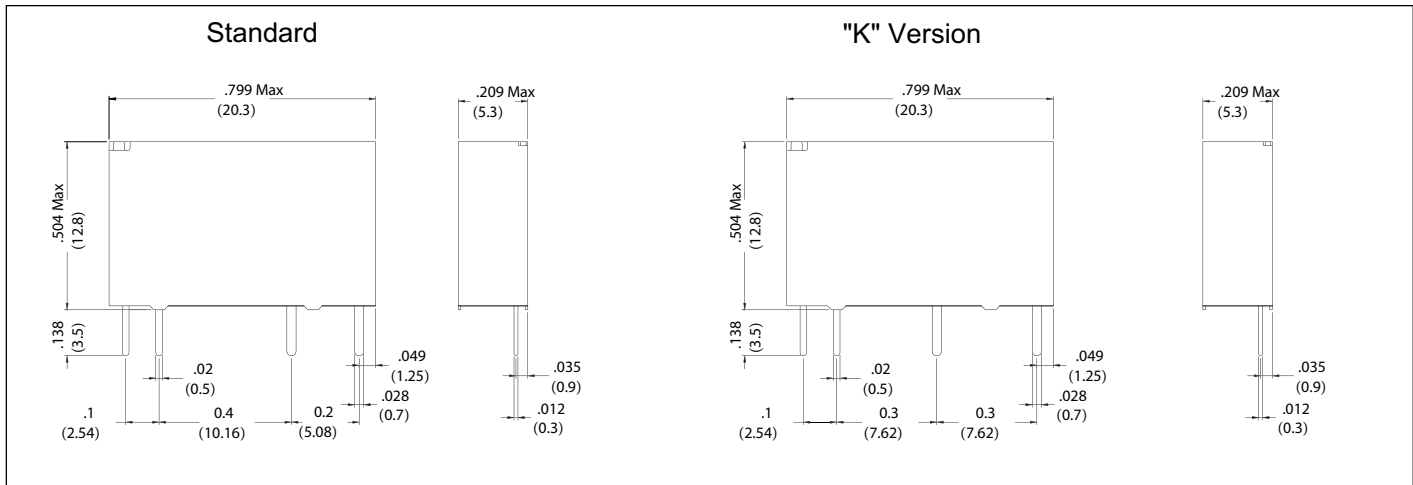
# AZ9201

## RELAY ORDERING DATA

| COIL SPECIFICATIONS |                  |                     |                            | ORDER NUMBER* |
|---------------------|------------------|---------------------|----------------------------|---------------|
| Nominal Coil VDC    | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Form A (SPST) |
| 5                   | 3.5              | 6.0                 | 208                        | AZ9201-1A-5D  |
| 6                   | 4.2              | 7.2                 | 300                        | AZ9201-1A-6D  |
| 9                   | 6.3              | 10.8                | 675                        | AZ9201-1A-9D  |
| 12                  | 8.4              | 14.4                | 1200                       | AZ9201-1A-12D |
| 18                  | 12.6             | 21.6                | 2700                       | AZ9201-1A-18D |
| 24                  | 16.8             | 28.8                | 3200                       | AZ9201-1A-24D |

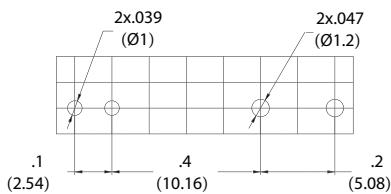
\*Add suffix "K" for 0.3 inch terminal spacing. Add suffix E for epoxy sealed version.

## MECHANICAL DATA

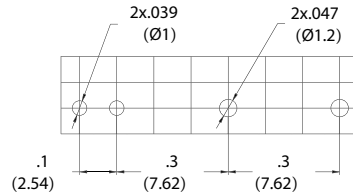


## PCB BOARD LAYOUT

### Standard

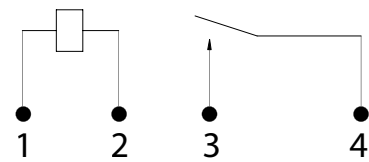


### "K" Version

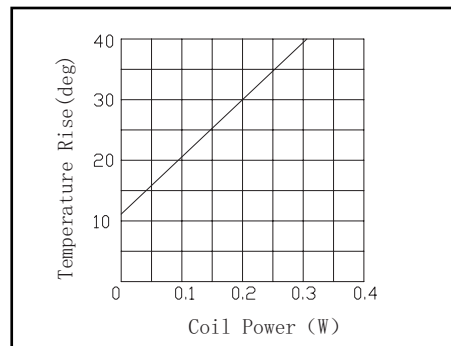
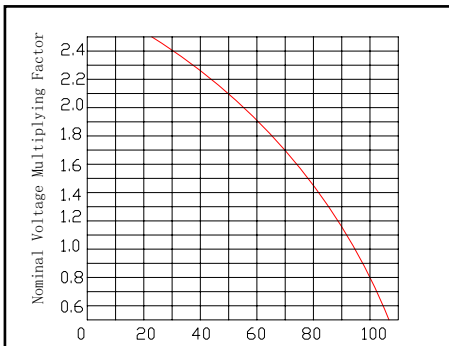


(Viewed Toward Terminals)

## WIRING DIAGRAM



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



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