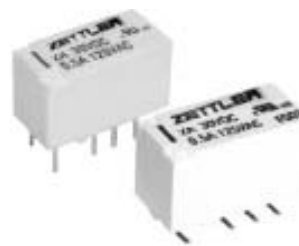


# AZ8462

## MICROMINIATURE POLARIZED RELAY

### FEATURES

- SMT and DIP mounting available
- Microminiature size: up to 50% less board area than previous generation telecom relays
- High dielectric and surge voltage:
  - 2.5KV surge (per Bellcore TA-NWT-001089); "V" Version 6KV surge and 3KV dielectric strength.
  - 1.5KV surge (per FCC Part 68)
  - 1,000Vrms, open contacts
- Monostable and bistable (latching) versions available
- Low power consumption: 79mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed for automatic wave soldering and cleaning
- UL, CUR file E43203
- All plastics meet UL94 V-0, 30 min. oxygen index



### CONTACTS

|                              |                                                                                                                               |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Arrangement</b>           | DPDT (2 Form C)<br>Bifurcated crossbar contacts                                                                               |
| <b>Ratings</b>               | Resistive load:<br>Max. switched power: 60W or 62.5VA<br>Max. switched current: 2A<br>Max. switched voltage: 220VDC or 250VAC |
| <b>Rated Load<br/>UL/CUR</b> | 0.5A at 125VAC general use<br>2.0A at 30VDC                                                                                   |
| <b>Material</b>              | Silver nickel, gold plated                                                                                                    |
| <b>Resistance</b>            | < 100 milliohms max (at 10mA, 30mV)                                                                                           |

### COIL (Polarized)

|                                                             |                                                              |
|-------------------------------------------------------------|--------------------------------------------------------------|
| <b>Power<br/>At Pickup Voltage<br/>(typical)</b>            | 79mW (3-24VDC)<br>152mW (48VDC)                              |
| <b>Max. Continuous<br/>Dissipation<br/>Temperature Rise</b> | 0.32W at 20°C (68°F)<br>At 30° C (54°F) nominal coil voltage |
| <b>Temperature</b>                                          | Max. 115°C (239°F)                                           |

### GENERAL DATA

|                                                      |                                                                                                                                           |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Life Expectancy<br/>Mechanical<br/>Electrical</b> | Minimum operations<br>1 x 10 <sup>8</sup> at 3Hz<br>1 x 10 <sup>5</sup> at 0.5A, 125VAC, Res.<br>1 x 10 <sup>5</sup> at 2.0A, 30VDC, Res. |
| <b>Operate Time (max)</b>                            | 4ms at nominal coil voltage                                                                                                               |
| <b>Release Time (max)</b>                            | 4ms at nominal coil voltage<br>(with no coil suppression)                                                                                 |
| <b>Dielectric Strength<br/>(at sea level)</b>        | See table                                                                                                                                 |
| <b>Dropout</b>                                       | Greater than 10% of nominal coil voltage                                                                                                  |
| <b>Insulation Resistance</b>                         | 10 <sup>9</sup> ohms min. at 25°C, 500VDC, 50% RH                                                                                         |
| <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 115°C (239°F)                                                |
| <b>Vibration</b>                                     | Operational, 3.3mm DA, 10-55 Hz<br>Non-destructive, 5.5mm DA, 10-55 Hz                                                                    |
| <b>Shock</b>                                         | Operational, 75 g min., 11ms<br>Non-destructive, 100 g min., 11ms                                                                         |
| <b>Max. Solder Temp.</b>                             | 260°C (500°F) for 5 seconds                                                                                                               |
| <b>Max. Solvent Temp.</b>                            | 80°C (176°F)                                                                                                                              |
| <b>Max. Immersion Time</b>                           | 30 seconds                                                                                                                                |
| <b>Weight (approx.)</b>                              | 2 grams                                                                                                                                   |
| <b>Enclosure</b>                                     | P.B.T. polyester                                                                                                                          |
| <b>Terminals</b>                                     | Tinned copper alloy, P.C.                                                                                                                 |

### NOTES

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

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# AZ8462

## RELAY ORDERING DATA

| STANDARD VERSION             |                   |                     |                            | ORDER NUMBER       |               |
|------------------------------|-------------------|---------------------|----------------------------|--------------------|---------------|
| Nominal Coil VDC             | Must Operate VDC  | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | THT (Through Hole) | SMT*          |
| 1.5                          | 1.13              | 2.2                 | 16.1                       | AZ8462-1.5         | AZ8462S-1.5   |
| 3                            | 2.25              | 4.5                 | 64.3                       | AZ8462-3           | AZ8462S-3     |
| 4.5                          | 3.38              | 6.7                 | 145                        | AZ8462-4.5         | AZ8462S-4.5   |
| 5                            | 3.75              | 7.5                 | 178                        | AZ8462-5           | AZ8462S-5     |
| 6                            | 4.50              | 9                   | 257                        | AZ8462-6           | AZ8462S-6     |
| 9                            | 6.75              | 13.5                | 579                        | AZ8462-9           | AZ8462S-9     |
| 12                           | 9.00              | 18                  | 1028                       | AZ8462-12          | AZ8462S-12    |
| 24                           | 18.00             | 36                  | 4114                       | AZ8462-24          | AZ8462S-24    |
| 48                           | 36.0              | 57.6                | 8533                       | AZ8462-48          | AZ8462S-48    |
| SINGLE COIL LATCHING VERSION |                   |                     |                            |                    |               |
| Nominal Coil VDC             | Set/Reset Voltage | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | THT (Through Hole) | SMT*          |
| 1.5                          | 1.13              | 2.7                 | 22.5                       | AZ8462P1-1.5       | AZ8462P1S-1.5 |
| 3                            | 2.25              | 5.4                 | 90                         | AZ8462P1-3         | AZ8462P1S-3   |
| 4.5                          | 3.38              | 8.1                 | 203                        | AZ8462P1-4.5       | AZ8462P1S-4.5 |
| 5                            | 3.75              | 9.0                 | 250                        | AZ8462P1-5         | AZ8462P1S-5   |
| 6                            | 4.50              | 10.8                | 360                        | AZ8462P1-6         | AZ8462P1S-6   |
| 9                            | 6.75              | 16.2                | 810                        | AZ8462P1-9         | AZ8462P1S-9   |
| 12                           | 9.00              | 21.6                | 1440                       | AZ8462P1-12        | AZ8462P1S-12  |
| 24                           | 18.00             | 43.2                | 5760                       | AZ8462P1-24        | AZ8462P1S-24  |
| DUAL COIL LATCHING VERSION   |                   |                     |                            |                    |               |
| Nominal Coil VDC             | Set/Reset Voltage | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | THT (Through Hole) | SMT*          |
| 1.5                          | 1.13              | 2.2                 | 11.2                       | AZ8462P2-1.5       | AZ8462P2S-1.5 |
| 3                            | 2.25              | 4.5                 | 45                         | AZ8462P2-3         | AZ8462P2S-3   |
| 4.5                          | 3.38              | 6.7                 | 101                        | AZ8462P2-4.5       | AZ8462P2S-4.5 |
| 5                            | 3.75              | 7.5                 | 125                        | AZ8462P2-5         | AZ8462P2S-5   |
| 6                            | 4.50              | 9.0                 | 180                        | AZ8462P2-6         | AZ8462P2S-6   |
| 9                            | 6.75              | 13.5                | 405                        | AZ8462P2-9         | AZ8462P2S-9   |
| 12                           | 9.00              | 18.0                | 720                        | AZ8462P2-12        | AZ8462P2S-12  |
| 24                           | 18.00             | 36.0                | 2880                       | AZ8462P2-24        | AZ8462P2S-24  |

\*For Tape and Reel add suffix "TR." For SMT short leg add "1" after S.

For 3KV dielectric strength (coil and contact) add '-V' after AZ8462. only for standard and single coil latching.

## INITIAL DIELECTRIC STRENGTH (minimum)

## SURGE

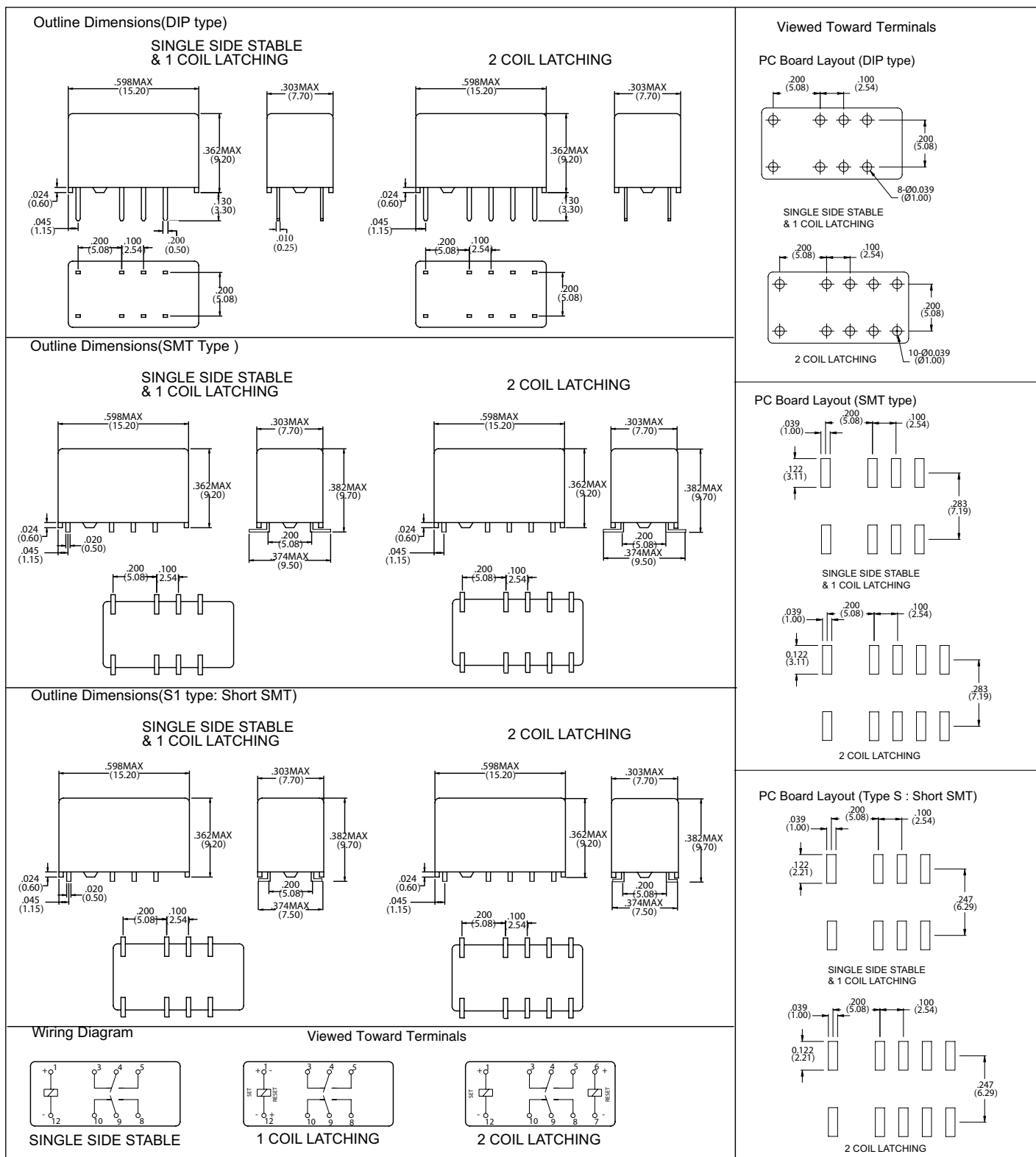
|                           | VRMS, 1 min. | Peak (V) | Rise Time ( $\mu$ S) | Decay Time* (9 $\mu$ S) (1/2 peak) |
|---------------------------|--------------|----------|----------------------|------------------------------------|
| Between open contacts     | 1,000        | 1,500    | 10                   | 160                                |
| Between contact sets      | 1,500        | -        | -                    | -                                  |
| Between coil and contacts | 2,000        | 2,500    | 2                    | 10                                 |

\* Decay time measured from beginning of surge.

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6/06/18

# AZ8462



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

## AMERICAN ZETTLER, INC.

6/06/18

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.