# 8 A SPST / 5 A DPST POLARIZED SUBMINIATURE POWER RELAY SINGLE SIDE STABLE (NON-LATCHING) AND BISTABLE (LATCHING) 

## FEATURES

- Dielectric strength 3000 Vrms
- Single and dual coil latching versions available
- Epoxy sealed version available
- 8 Amp switching
- Class $B\left(130^{\circ} \mathrm{C}\right)$ insulation standard
- Class F $\left(155^{\circ} \mathrm{C}\right)$ insulation available
- UL, CUR file E44211


## CONTACTS

| Arrangement | SPST (1 Form A), DPST (2 Form A) DPST (1 Form A and 1 Form B) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 150 W or 2000 VA (SPST) <br> 150 W or 1250 VA (DPST) <br> Max. switched current: 8 A (SPST) <br> 5 A (DPST) <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. |
| Rated Load UL, CUR | SPST <br> 8 A at 250 VAC resistive, 100 k cycles 5 A at 30 VDC resistive, 100 k cycles $1 / 6 \mathrm{HP}$ at 250 VAC <br> DPST <br> 5 A at 250 VAC resistive, 100 k cycles 5 A at 30 VDC resistive, 100 k cycles $1 / 6 \mathrm{HP}$ at 250 VAC |
| Material | Silver nickel, gold plating optional |
| Resistance | < 50 milliohms initially ( 6 V 1 A voltage drop method) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) | 192 mW (single side stable, 2 coil latching) <br> 96 mW (1 coil latching) |
| :--- | :--- |
| Max. Continuous <br> Dissipation | 0.75 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |$|$| Temperature Rise | $30^{\circ} \mathrm{C}\left(54^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| :--- | :--- |
| Max. Temperature | $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right) \mathrm{Class} \mathrm{B}, 155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ <br> Class F |

## GENERAL DATA

| Life Expectancy Mechanical Electrical | $\begin{aligned} & \text { Minimum operations } \\ & 1 \times 10^{7} \\ & 1 \times 10^{5} \text { at } 8 \text { A } 250 \text { VAC resistive (SPST) } \end{aligned}$ |
| :---: | :---: |
| Operate Time (typical) | 5 ms at nominal coil voltage |
| Release Time (typical) | 3 ms at nominal coil voltage (with no coil suppression) |
| Set Time (typical) | 5 ms at nominal coil voltage |
| Reset Time (typical) | 4 ms at nominal coil voltage |
| Dielectric Strength (at sea level) 1 min. | 3000 Vrms contact to coil 1000 Vrms between open contacts 2000 Vrms between contact sets |
| Insulation Resistance | 1000 megohms min. at $20^{\circ} \mathrm{C}$ 500 Vdc $50 \%$ RH |
| Dropout | Greater than $10 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.078 " DA at 10 to 55 Hz |
| Shock | 20 g functional 100 g destructive |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |
| Max. Solder Temp. | $270^{\circ} \mathrm{C}\left(518^{\circ} \mathrm{F}\right)$ |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 seconds |
| Weight | 4.7 grams |

## NOTES

[^0]
## RELAY ORDERING DATA

AZ881

| COIL SPECIFICATIONS - SINGLE SIDE STABLE |  |  |  | ORDER NUMBER* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must. Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10 \%$ | 1 Form A | 2 Form A | 1 Form A 1 Form B |
| 3 | 2.4 | 4.7 | 30 | AZ881-1A-3D | AZ881-2A-3D | AZ881-1AB-3D |
| 5 | 4.0 | 7.9 | 83 | AZ881-1A-5D | AZ881-2A-5D | AZ881-1AB-5D |
| 6 | 4.8 | 9.6 | 120 | AZ881-1A-6D | AZ881-2A-6D | AZ881-1AB-6D |
| 9 | 7.2 | 14.4 | 270 | AZ881-1A-9D | AZ881-2A-9D | AZ881-1AB-9D |
| 12 | 9.6 | 19.2 | 480 | AZ881-1A-12D | AZ881-2A-12D | AZ881-1AB-12D |
| 24 | 19.2 | 37.9 | 1920 | AZ881-1A-24D | AZ881-2A-24D | AZ881-1AB-24D |

*Add suffix " $E$ " for epoxy sealed version. Add suffix " $A$ " for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix " F " for class F insulation.

## AZ881P1

| COIL SPECIFICATIONS - SINGLE COIL LATCHING |  |  |  | ORDER NUMBER* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must. Operate VDC | Max. Continuous VDC | $\begin{aligned} & \text { Coil } \\ & \text { Resistance } \\ & \pm 10 \% \end{aligned}$ | Form A | 2 Form A | $\begin{aligned} & 1 \text { Form } A \\ & 1 \text { Form B } \end{aligned}$ |
| 3 | 2.4 | 6.7 | 60 | AZ881P1-1A-3D | AZ881P1-2A-3D | AZ881P1-1AB-3D |
| 5 | 4.0 | 11.2 | 167 | AZ881P1-1A-5D | AZ881P1-2A-5D | AZ881P1-1AB-5D |
| 6 | 4.8 | 13.4 | 240 | AZ881P1-1A-6D | AZ881P1-2A-6D | AZ881P1-1AB-6D |
| 9 | 7.2 | 20.1 | 540 | AZ881P1-1A-9D | AZ881P1-2A-9D | AZ881P1-1AB-9D |
| 12 | 9.6 | 26.8 | 960 | AZ881P1-1A-12D | AZ881P1-2A-12D | AZ881P1-1AB-12D |

*Add suffix " $E$ " for epoxy sealed version. Add suffix " $A$ " for gold plated contacts. Add suffix " $R$ " for reversed polarity coil. Add suffix "F" for class $F$ insulation.

AZ881P2

| COIL SPECIFICATIONS - DUAL COIL LATCHING |  |  |  | ORDER NUMBER* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must. Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10 \%$ | 1 Form A | 2 Form A | 1 Form A |
| 3 | 2.4 | 4.7 | 30 | AZ881P2-1A-3D | AZ881P2-2A-3D | AZ881P2-1AB-3D |
| 5 | 4.0 | 7.9 | 83 | AZ881P2-1A-5D | AZ881P2-2A-5D | AZ881P2-1AB-5D |
| 6 | 4.8 | 9.5 | 120 | AZ881P2-1A-6D | AZ881P2-2A-6D | AZ881P2-1AB-6D |
| 9 | 7.2 | 14.2 | 270 | AZ881P2-1A-9D | AZ881P2-2A-9D | AZ881P2-1AB-9D |
| 12 | 9.6 | 19.0 | 480 | AZ881P2-1A-12D | AZ881P2-2A-12D | AZ881P2-1AB-12D |
| 24 | 19.2 | 37.9 | 1920 | AZ881P2-1A-24D | AZ881P2-2A-24D | AZ881P2-1AB-24D |

*Add suffix " $E$ " for epoxy sealed version. Add suffix "A" for gold plated contacts. Add suffix "R" for reversed polarity coil. Add suffix " $F$ " for class $F$ insulation.

MECHANICAL DATA


Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010^{\prime \prime}$

## AMERICAN ZETTLER, INC. www.azettler.com


[^0]:    1. All values at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$.
    2. Relay may pull in with less than "Must Operate" value.
    3. Relay has fixed coil polarity.
    4. For complete isolation between the relay's magnetic fields, it is recommended that a $197^{\prime \prime}(5.0 \mathrm{~mm})$ space be provided between adjacent relays.
    5. Relay adjustment may be affected if undue pressure is exerted on relay case.
    6. Specifications subject to change without notice.
