## MICROMINIATURE

## POLARIZED RELAY

## FEATURES

- Microminiature size: up to $50 \%$ less board area than previous generation telecom relays
- Meets FCC Part 68.3021500 V lightning surge
- Low power consumption: 36 mW 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

| Arrangement | SPDT (1 Form C) <br> Bifurcated crossbar contacts |
| :--- | :--- |
| Ratings | Resistive load: <br> Max. switched power: 30 W or 60 VA <br> Max. switched current: 1.0 A <br> Max. switched voltage: 150 VDC or 125 VAC |
| Rated Load <br> UL | 0.5 A at 120 VAC <br> 1.0 A at 30 VDC |
| Material | Palladium nickel with gold-rhodium overlay |
| Resistance | $<50$ milliohms initally <br> $(6 \mathrm{~V}, 10 \mathrm{~mA}$ method) |

## COIL (Polarized)

| Power <br> At Pickup Voltage <br> (typical) | 36 mW |
| :--- | :--- |
| Max. Continuous <br> Dissipation <br> Temperature Rise | At nominal coil voltage <br> $8^{\circ} \mathrm{C}\left(15^{\circ} \mathrm{F}\right)$ |
| Temperature | Max. $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |

## NOTES

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. Specifications subject to change without notice.


GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{9}$ <br> $2.5 \times 105$ at $0.4 \mathrm{~A}, 125 \mathrm{VAC}$, resistive <br> $3 \times 10^{6}$ at $1.0 \mathrm{~A}, 24 \mathrm{VDC}$, resistive |
| :---: | :---: |
| Operate Time (typical) | 1 ms at nominal coil voltage |
| Release Time (typical) | 0.4 ms at nominal coil voltage (with no coil suppression) |
| Bounce (typical) | At 10 mA contact current 1 ms at operate or release |
| Dielectric Strength (at sea level) | 1500 Vrms contact to coil 500 Vrms between open contacts |
| Dropout | Greater than $10 \%$ of nominal coil voltage |
| Insulation Resistance | 109 ohms min. at $25^{\circ} \mathrm{C}, 500 \mathrm{VDC}$, $50 \%$ RH |
| 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 $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |
| Vibration | Operational, $40 \mathrm{~g}, 10-200 \mathrm{~Hz}$ |
| Shock | Operational, 50 g min., 11 ms Non-destructive, 150 g min., 11 ms |
| Max. Solder Temp. Temp./Time | Vapor phase: $215^{\circ} \mathrm{C}, 40 \mathrm{Sec}$. Infrared: $215^{\circ} \mathrm{C}, 40 \mathrm{Sec}$. Double wave: $260^{\circ} \mathrm{C}$, 10 Sec . |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 seconds |
| Weight | 1.8 grams |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |

RELAY ORDERING DATA

| STANDARD RELAYS |  |  |  |  |  | Order Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil | Max. Continuous VDC |  | Coil Resistance $\pm 10 \%$ |  | Must Operate VDC | THT <br> Through Hole | SMT |
| VDC | THT | SMT | THT | SMT |  |  |  |
| 1.5 | 4.5 | 4.0 | 36 | 28 | 1.13 | AZ956-1.5DE | AZ956S-1.5DE |
| 3 | 8.8 | 8.0 | 137 | 113 | 2.25 | AZ956-3DE | AZ956S-3DE |
| 5 | 14.5 | 13.3 | 370 | 313 | 3.75 | AZ956-5DE | AZ956S-5DE |
| 9 | 25.5 | 23.9 | 1165 | 1013 | 6.75 | AZ956-9DE | AZ956S-9DE |
| 12 | 35 | 35 | 2250 | 1800 | 9.00 | AZ956-12DE | AZ956S-12DE |
| 15 | 42 | 42 | 3100 | 2813 | 11.30 | AZ956-15DE | AZ956S-15DE |
| 24 | 50 | 50 | 4500 | 4500 | 18.00 | AZ956-24DE | AZ956S-24DE |

## MECHANICAL DATA



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

