80 AMP
SUPER-ISO

## AUTOMOTIVE RELAY

## FEATURES

- 80 Amp contact rating - "Super ISO"
- High momentary carry current (500 A)
- High operating temperature $\left(85^{\circ} \mathrm{C}\right)$
- SPST (1 Form A), SPDT (1 Form C), SPST N.C. ( Form B)
- Quick connect terminals
- ISO/TS 16949, ISO14001


## CONTACTS

| Arrangement | SPST- N.O. (1 Form A), SPST - N.C. (1 Form B), SPDT (1 Form C) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched voltage: 30 VDC |
| Material | Silver tin oxide |
| Resistance | < 50 milliohms initially <br> ( $24 \mathrm{~V}, 1$ A voltage drop method) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) | 0.76 W |
| :--- | :--- |
| Max. Continuous <br> Dissipation | 3.0 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Temperature Rise | $56^{\circ} \mathrm{C}\left(101^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| Temperature | $\mathrm{Max} .155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |

## NOTES

[^0]GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{7}$ <br> $1 \times 10^{5}$ at 80 A 14 VDC Res. |
| :---: | :---: |
| Operate Time (typical) | 7 ms at nominal coil voltage |
| Release Time (typical) | 5 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min .) | 500 Vrms coil to contact 500 Vrms contact to contact |
| Insulation Resistance | 100 megohms min. at $500 \mathrm{VDC}, 20^{\circ} \mathrm{C}$ $50 \% \mathrm{RH}$ |
| Dropout | Greater than $10 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | $\begin{aligned} & -40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right) \text { to } 85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right) \\ & -40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right) \text { to } 105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right) \end{aligned}$ |
| Vibration | 0.062" DA at $10-55 \mathrm{~Hz}$ |
| Shock | 10 g |
| Enclosure | P.B.T. polyester |
| Terminals | Copper alloy <br> Quick Connect <br> Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| Weight | 48 grams |

RELAY ORDERING DATA

| COIL SPECIFICATIONS |  |  |  |  |  |  |  | ORDER NUMBER* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil <br> VDC | Must Operate <br> VDC | Max. Continuous <br> VDC | Coil Resistance <br> $\pm \mathbf{1 0 \%}$ | SPST | SPDT |  |  |  |  |
| 6 | 3.9 | 7.8 | 20 | AZ979-1A-6D | AZ979-1C-6D |  |  |  |  |
| 12 | 7.8 | 19.0 | 90 | AZ979-1A-12D | AZ979-1C-12D |  |  |  |  |
| 24 | 15.6 | 37.9 | 360 | AZ979-1A-24D | AZ979-1C-24D |  |  |  |  |

* For SPST (N.C.) (1 Form B) relay, substitute "-1B" for "-1A". Add suffix "R" for resistor in parellel with coil. Resistor values: 6V: 180 ohms, 12 V : 680 ohms, 24V: 2700 ohms. Add suffix " $D$ " for diode across coil ("+" pole of power supply at terminal \#86). Add suffix "C1" for steel mounting bracket. Add suffix "E" for epoxy sealed version.


## MECHANICAL DATA



Dimensions in inches with millimeters in brackets below. Tolerance: $\pm .010^{\prime \prime}$

HARDWARE ORDERING DATA

| DESCRIPTION | ORDER NUMBER |
| :---: | :---: |
| Socket 4 Pin | ST980 |
| Socket 5 Pin | ST980-1 |

## MECHANICAL DATA

Socket, SPST - ST980
Socket, SPDT - ST980-1


[^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. Specifications subject to change without notice.
