## 80 AMP <br> AUTOMOTIVE <br> RELAY

## FEATURES

- 80 Amp contact rating
- High momentary carry current
- High operating temperature $\left(85^{\circ} \mathrm{C}\right)$
- SPST N.O. (1 Form A), SPDT (1 Form C), SPST N.C. (1 Form B)
- PCB terminals
- Epoxy sealed version available


## CONTACTS

| Arrangement | $\begin{aligned} & \text { SPST (1 Form A) } \\ & \text { SPST (1 Form B) } \\ & \text { SPDT (1 Form C) } \end{aligned}$ |
| :---: | :---: |
| Ratings <br> 1 Form A <br> 1 Form B <br> 1 Form C | Resistive load: <br> Max. switched power: 1120 W <br> Max. switched current: 80 A <br> Max. switched voltage: 28 VDC <br> Max. switched power: 840 W <br> Max. switched current: 60 A <br> Max. switched voltage: 28 VDC <br> Max. switched power: 840 W <br> Max. switched current: 60 A <br> Max. switched voltage: 28 VDC |
| Rated Load <br> 1 Form A <br> 1 Form B <br> 1 Form C | Resistive load: <br> 80 A at 14 VDC Resistive, $20^{\circ} \mathrm{C}$ <br> 40 A at 28 VDC Resistive, $20^{\circ} \mathrm{C}$ <br> 40 A at 14 VDC Resistive, $85^{\circ} \mathrm{C}$ <br> 20 A at 28 VDC Resistive, $85^{\circ} \mathrm{C}$ <br> 120 A at 28 VDC Resistive, $85^{\circ} \mathrm{C}$ <br> (inrush for 3 seconds with make/break ratio 1:10) <br> 60 A at 14 VDC Resistive, $20^{\circ} \mathrm{C}$ <br> 30 A at 28 VDC Resistive, $20^{\circ} \mathrm{C}$ <br> 30 A at 14 VDC Resistive, $85^{\circ} \mathrm{C}$ <br> 15 A at 28 VDC Resistive, $85^{\circ} \mathrm{C}$ <br> 60 A at 14 VDC Resistive, $20^{\circ} \mathrm{C}$, (N.O.) <br> 40 A at 28 VDC Resistive, $20^{\circ} \mathrm{C}$, (N.O.) <br> 40 A at 14 VDC Resistive, $85^{\circ} \mathrm{C}$, (N.O.) <br> 20 A at 28 VDC Resistive, $85^{\circ} \mathrm{C}$, (N.O.) <br> 60 A at 14 VDC Resistive, $20^{\circ} \mathrm{C}$, (N.C.) <br> 30 A at 28 VDC Resistive, $20^{\circ} \mathrm{C}$, (N.C.) <br> 30 A at 14 VDC Resistive, $85^{\circ} \mathrm{C}$, (N.C.) <br> 15 A at 28 VDC Resistive, $85^{\circ} \mathrm{C}$, (N.C.) |
| Material | Silver tin oxide |
| Resistance | < 50 milliohms initially <br> (at $24 \mathrm{~V}, 1 \mathrm{~A}$, voltage drop method) |

GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $\begin{aligned} & 1 \times 10^{7} \\ & 1 \times 10^{5} \text { at } 80 \text { A } 14 \text { VDC Res. } \end{aligned}$ |
| :---: | :---: |
| 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 between open contacts |
| Insulation Resistance | 100 megohms min. at $500 \mathrm{VDC}, 20^{\circ} \mathrm{C}$ $50 \%$ RH |
| Dropout | Greater than 10\% of nominal coil voltage |
| Ambient Temperature Operating | $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.062 " (1.5 mm) DA at 10-55 Hz |
| Shock | 10 g |
| Enclosure | PA 66 |
| Terminals | Copper alloy PCB |
| Weight | 40 grams |

COIL

| Power <br> At Pickup Voltage <br> (typical) | 0.76 W |
| :--- | :--- |
| Max. Continuous <br> Dissipation <br> Temperature Rise | 3.0 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Temperature | $\mathrm{Max} .155^{\circ} \mathrm{C}\left(312^{\circ} \mathrm{F}\right)$ at nominal coil voltage |

## 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. Specifications subject to change without notice.

## ZETTLER electronics GmbH

RELAY ORDERING DATA

| COIL SPECIFICATIONS |  |  |  | ORDER NUMBER* |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10 \%$ | SPST | SPDT |
| 6 | 3.9 | 7.8 | 20 | AZ983-1A-6D | AZ983-1C-6D |
| 12 | 7.8 | 15.6 | 80 | AZ983-1A-12D | AZ983-1C-12D |
| 24 | 15.6 | 31.2 | 320 | AZ983-1A-24D | AZ983-1C-24D |

* For SPST (N.C.) (1 Form B) relay, substitue "1B" for "1A"

Add suffix "R" for resistor in parallel with coil. Resistor values: 6V: $180 \Omega, 12 \mathrm{~V}: 680 \Omega, 24 \mathrm{~V}: 2700 \Omega$.
Add suffix " $D$ " for diode across coil option (+ pole of power supply at terminal \#86).
Add suffix "E" for epoxy sealed version.

MECHANICAL DATA


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

