## 25 AMP SUB-MICRO TWIN h-BRIDGE AUTOMOTIVE RELAY

## FEATURES

- Up to 25 Amp switching capability in a very compact size
- Vibration and shock resistant
- Designed for power windows, door locks and wiper motors, seat adjusters, and more
- Epoxy sealed for automatic wave soldering
- ISO/TS 16949, ISO14001
- Tested in accordance with SAE J2544
- Cost effective
- Dual (Twin) H-Bridge relay


## CONTACTS

| Arrangement | DPDT (2 Form C) (Twin) H-Bridge |
| :--- | :--- |
| Ratings | Resistive load: <br> Max. switched power: 400 W <br> Max. switched current: 25 A <br> Max. switched voltage: 16 VDC <br> Rated load: 25 A at 14 VDC, locked motor |
| Material | Silver tin oxide |
| Resistance | $<25$ milliohms initially <br> $(6 \mathrm{~V}, 1$ A voltage drop method) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) |  |
| :--- | :--- |
| Max. Continuous | 230 mW |
| Dissipation | 2.2 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |
| Temperature Rise | $40^{\circ} \mathrm{C}\left(72^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| Max Temperature | $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |

## 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. Specifications subject to change without notice.

GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $\begin{aligned} & 1 \times 10^{6} \\ & 1 \times 10^{5} \text { at } 25 \text { A } 14 \text { VDC locked motor } \end{aligned}$ |
| :---: | :---: |
| Operate Time | 3 ms typical at nominal coil voltage |
| Release Time | 1.5 ms typical at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min.) | 500 VAC coil to contact <br> 500 VAC between open contacts |
| Insulation Resistance | 100 megohms min. at $20^{\circ} \mathrm{C}, 500$ VDC $50 \%$ RH |
| Dropout | Greater than $8.3 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |
| Vibration | 4.5 g at $10-500 \mathrm{~Hz}$ |
| Shock | 10 g operational, 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 | 7.5 grams |

## RELAY ORDERING DATA

| STANDARD RELAYS - 2 Form C (Twin) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| COIL SPECIFICATIONS |  |  |  | ORDER NUMBER |
| $\underset{\text { VDC }}{\text { Nominal Coil }}$ | Must Operate VDC | Max. Continuous | Coil Resistance $\pm 10 \%$ | 2 Form C (DPDT) |
| 12 | 6.5 | 18.0 | 180 | AZ9891H-2C-12DE |
| 12 | 7.2 | 20.0 | 225 | AZ9891H-2C-12DSE |

## MECHANICAL DATA



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

