12 AMP
MINIATURE
PC BOARD RELAY

## FEATURES

- Extremely low cost
- High switching capacity - 12 Amps
- DC coils to 48 VDC
- UL and Canadian approval (E44211); VDE 6820 今
- Class B insulation for high temperature operation
- Class F insulation available


## CONTACTS

| Arrangement | $\begin{aligned} & \text { SPST (1 Form A) } \\ & \text { SPDT (1 Form C) } \end{aligned}$ |
| :---: | :---: |
| Ratings Medium Duty | Resistive load <br> Max. switched power: 150 W or 2770 VA <br> Max. switched current: 10 A <br> Max. switched voltage: 30 VDC or 300 VAC <br> UL Rating: 5 A at 30 VDC 10 A at 277 VAC <br> $1 / 3$ HP at 125 VAC ( 1 Form A) 2.9 A 125 VAC pilot duty (1 Form A) |
| Heavy Duty | Max. switched power: 336 W or 3324 VA <br> Max. switched current: 12 A <br> Max. switched voltage: 30 VDC or 300 VAC <br> UL Rating: 12 A at 28 VDC <br> 12 A at 277 VAC <br> 2.0 A at 240 VAC pilot duty |
| Material | Silver alloy |
| Resistance | <100 milliohms initially <br> ( $24 \mathrm{~V}, 1$ A voltage drop method) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) | 230 mW |
| :--- | :--- |
| Max Continuous <br> Dissipation | Class B: 1.7 W at $20^{\circ} \mathrm{C}\left(68{ }^{\circ} \mathrm{F}\right)$ ambient <br> Class F: 2.2 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |
| Temperature Rise | $25^{\circ} \mathrm{C}\left(45^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| Temperature | Class B : Max. $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ <br> Class F: Max. $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |

## 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. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

5 Only AZ942-1CT unsealed version is VDE approved at 5 A, 250 VAC.

## GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{7}$ <br> $1 \times 10^{5}$ at rated load |
| :---: | :---: |
| Operate Time (typical) | 10 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 .) | 1750 Vrms contact to coil 1000 Vrms across contacts |
| Insulation Resistance | 100 megohms min. at $20^{\circ} \mathrm{C}, 500 \mathrm{VDC}$, $50 \%$ RH |
| Dropout | Greater than 10\% of nominal coil voltage |
| Ambient Temperature Operating <br> Storage | At nominal coil voltage <br> Class B: $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ <br> Class F: $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ <br> Class B: $-55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right)$ to $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ <br> Class F: $-55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right)$ to $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.062 " DA at 10-55Hz |
| Shock | 10 g |
| 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 | 13 g |

RELAY ORDERING DATA

| STANDARD RELAYS: Medium Duty Type (10 Amp Contact) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| COIL SPECIFICATIONS |  |  |  | ORDER NUMBER* |  |
| Nominal Coil VDC | Max. Continuous VDC | $\begin{gathered} \hline \text { Coil Resistance } \\ \pm 10 \% \end{gathered}$ | Must Operate VDC | Unsealed | Sealed |
| 3 | 6.5 | 25 | 2.4 | AZ942-1CH-3D | AZ942-1CH-3DE |
| 5 | 11.0 | 70 | 4.0 | AZ942-1CH-5D | AZ942-1CH-5DE |
| 6 | 13.0 | 100 | 4.8 | AZ942-1CH-6D | AZ942-1CH-6DE |
| 9 | 20.0 | 225 | 7.2 | AZ942-1CH-9D | AZ942-1CH-9DE |
| 12 | 26.0 | 400 | 9.6 | AZ942-1CH-12D | AZ942-1CH-12DE |
| 24 | 52.0 | 1,600 | 19.2 | AZ942-1CH-24D | AZ942-1CH-24DE |
| 48 | 104.0 | 6,200 | 38.4 | AZ942-1CH-48D | AZ942-1CH-48DE |

*Substitute " 1 AT " in place of " 1 CH " to indicate 1 Form A contact. To indicate Class F version, add suffix "F."

## RELAY ORDERING DATA

| STANDARD RELAYS: Heavy Duty Type (12 Amp Contact) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COIL SPECIFICATIONS |  |  |  |  |  |  |  | ORDER NUMBER* |  |
| Nominal Coil <br> VDC | Max. Continuous <br> VDC | Coil Resistance <br> $\pm 10 \%$ | Must Operate <br> VDC | Unsealed | Sealed |  |  |  |  |
| 3 | 6.5 | 25 | 2.4 | AZ942-1CT-3D | AZ942-1CT-3DE |  |  |  |  |
| 5 | 11.0 | 70 | 4.0 | AZ942-1CT-5D | AZ942-1CT-5DE |  |  |  |  |
| 6 | 13.0 | 100 | 4.8 | AZ942-1CT-6D | AZ942-1CT-6DE |  |  |  |  |
| 9 | 20.0 | 225 | 7.2 | AZ942-1CT-9D | AZ942-1CT-9DE |  |  |  |  |
| 12 | 26.0 | 400 | 9.6 | AZ942-1CT-12D | AZ942-1CT-12DE |  |  |  |  |
| 24 | 52.0 | 1,600 | 19.2 | AZ942-1CT-24D | AZ942-1CT-24DE |  |  |  |  |
| 48 | 104.0 | 6,200 | 38.4 | AZ942-1CT-48D | AZ942-1CT-48DE |  |  |  |  |

*Substitute " 1 AW" in place of " 1 CT " to indicate 1 Form A contact. To indicate Class F version, add suffix "F."

MECHANICAL DATA


Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm 0.010^{\prime \prime}$

