

AZ951/AZ952

SUBMINIATURE POWER RELAY

FEATURES

- Subminiature size for high density packaging
- Coil sensitivity to 116 mW
- Extremely low cost
- Coils to 24 VDC
- Epoxy sealed for automatic wave soldering
- 1 Amp, 3 Amp & 5 Amp contacts
- Life expectancy to 10 million operations
- UL, CUR file E43203



CONTACTS

| | |
|-------------|--|
| Arrangement | SPDT (1 Form C) |
| Ratings | Resistive load: |
| Light Duty | Max. switched power: 30 W or 125 VA Max. switched current: 1 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 1 A at 30 VDC 1 A at 125 VAC |
| Medium Duty | Max. switched power: 90 W or 375 VA Max. switched current: 3 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 3 A at 30 VDC 3 A at 125 VAC |
| Heavy Duty | Max. switched power: 150 W or 625 VA Max. switched current: 5 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 5 A at 30 VDC 5 A at 125 VAC 270 VA, 120 VAC Pilot Duty N.O. 30k cycles, N.C. 6k cycles |
| Material | Light and Medium Duty: Silver, gold plated Heavy Duty: Silver nickel gold plated |
| Resistance | < 100 milliohms initially |

COIL

| | |
|-----------------------------|---|
| Power | |
| At Pickup Voltage (typical) | Standard Coil: 253 mW Sensitive coil: 116 mW |
| Max Continuous Dissipation | 0.8 W at 20°C (68°F) ambient 0.6 W at 40°C (104°F) ambient |
| Temperature Rise | At nominal coil voltage: Standard: 54°C (97°F) Sensitive: 30°C (54°F) |
| Max. Temperature | 105°C (221°F) |

GENERAL DATA

| | |
|--|---|
| Life Expectancy | Minimum operations |
| Mechanical | 1 x 10 ⁷ |
| Electrical | 1 x 10 ⁵ at 3 A 120 VAC Res. |
| Operate Time (typical) | 5 ms at nominal coil voltage |
| Release Time (typical) | 1 ms at nominal coil voltage (with no coil suppressions) |
| Dielectric Strength (at sea level for 1 min.) | 1250 Vrms coil to contact 750 Vrms between open contacts |
| Insulation Resistance | 100 megohms min. at 20°C, 500 VDC |
| Dropout | Greater than 10% of nominal coil voltage |
| Ambient Temperature | At nominal coil voltage |
| Operating | Standard: -25°C (-13°F) to 55°C (131°F) Sensitive: -25°C (-13°F) to 75°C (167°F) |
| Storage | Both: -25°C (-13°F) to 105°C (221°F) |
| Vibration | 0.062" DA at 10–55Hz |
| Shock | 15 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy |
| Max. Solder Temp. | 270°C (518°F) |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | 80°C (176°F) |
| Max. Immersion Time | 30 seconds |
| Weight | 3.5 grams |

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.



AMERICAN ZETTLER, INC.

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AZ951/AZ952

RELAY ORDERING DATA

| STANDARD RELAYS — Light Duty Type | | | | | |
|-----------------------------------|---------------------|----------------------------|------------------|---------------|---------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 6.7 | 56 | 3.75 | AZ951-1C-5DE | AZ952-1C-5DE |
| 6 | 8.0 | 80 | 4.50 | AZ951-1C-6DE | AZ952-1C-6DE |
| 12 | 16.0 | 320 | 9.00 | AZ951-1C-12DE | AZ952-1C-12DE |
| 24 | 32.0 | 1280 | 18.00 | AZ951-1C-24DE | AZ952-1C-24DE |

| SENSITIVE RELAYS — Light Duty Type | | | | | |
|------------------------------------|---------------------|----------------------------|------------------|----------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 8.5 | 120 | 3.75 | AZ951-1C-5DSE | AZ952-1C-5DSE |
| 6 | 10.4 | 180 | 4.50 | AZ951-1C-6DSE | AZ952-1C-6DSE |
| 9 | 15.3 | 400 | 6.75 | AZ951-1C-9DSE | AZ952-1C-9DSE |
| 12 | 20.5 | 700 | 9.00 | AZ951-1C-12DSE | AZ952-1C-12DSE |
| 24 | 41.0 | 2800 | 18.00 | AZ951-1C-24DSE | AZ952-1C-24DSE |

| STANDARD RELAYS — Medium Duty Type | | | | | |
|------------------------------------|---------------------|----------------------------|------------------|----------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 6.7 | 56 | 3.75 | AZ951-1CM-5DE | AZ952-1CM-5DE |
| 6 | 8.0 | 80 | 4.50 | AZ951-1CM-6DE | AZ952-1CM-6DE |
| 12 | 16.0 | 320 | 9.00 | AZ951-1CM-12DE | AZ952-1CM-12DE |
| 24 | 32.0 | 1280 | 18.00 | AZ951-1CM-24DE | AZ952-1CM-24DE |

| SENSITIVE RELAYS — Medium Duty Type | | | | | |
|-------------------------------------|---------------------|----------------------------|------------------|-----------------|-----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 8.5 | 120 | 3.75 | AZ951-1CM-5DSE | AZ952-1CM-5DSE |
| 6 | 10.4 | 180 | 4.50 | AZ951-1CM-6DSE | AZ952-1CM-6DSE |
| 9 | 15.3 | 400 | 6.75 | AZ951-1CM-9DSE | AZ952-1CM-9DSE |
| 12 | 20.5 | 700 | 9.00 | AZ951-1CM-12DSE | AZ952-1CM-12DSE |
| 24 | 41.0 | 2800 | 18.00 | AZ951-1CM-24DSE | AZ952-1CM-24DSE |

| STANDARD RELAYS — Heavy Duty Type | | | | | |
|-----------------------------------|---------------------|----------------------------|------------------|----------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 6.7 | 56 | 3.75 | AZ951-1CH-5DE | AZ952-1CH-5DE |
| 6 | 8.0 | 80 | 4.50 | AZ951-1CH-6DE | AZ952-1CH-6DE |
| 12 | 16.0 | 320 | 9.00 | AZ951-1CH-12DE | AZ952-1CH-12DE |
| 24 | 32.0 | 1280 | 18.00 | AZ951-1CH-24DE | AZ952-1CH-24DE |



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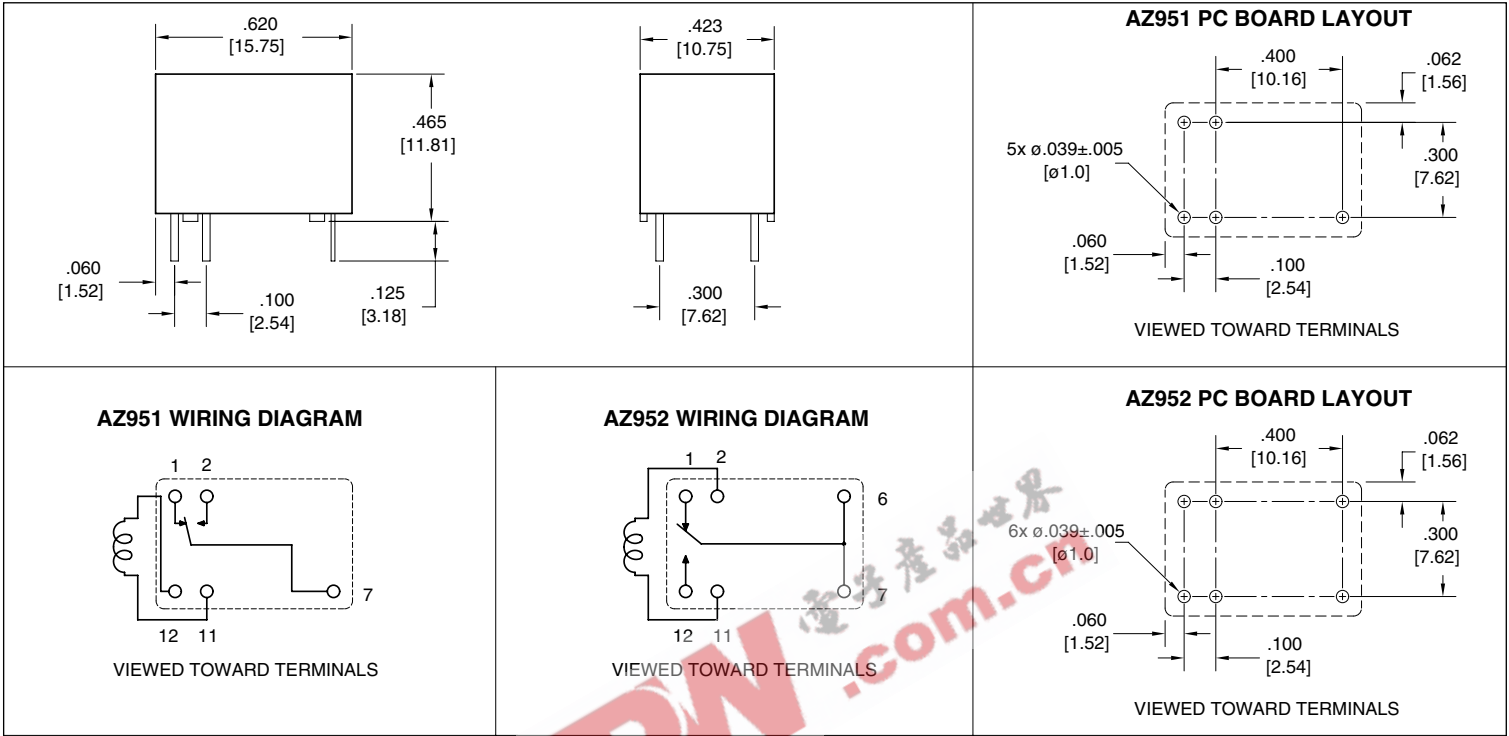
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MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± 0.010 "



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