

AZ7705

SUBMINIATURE POWER RELAY

FEATURES

- Small footprint
- 4 kV dielectric strength, 10 kV surge
- Epoxy sealed available
- Type 'F' 155°C wire standard
- 5 Amp switching
- High current 10A version available
- UL, CUR file E44211



CONTACTS

| | |
|-------------------------------|--|
| Arrangement | SPST (1 Form A) |
| Ratings | Resistive load: Max. switched power: 150 W (SPST-NO) standard 1250 VA (SPST-NO) standard Max. switched current: 5 A AC SPST-NO standard 5 A DC SPST-NO standard 3 A AC/DC SPST-NO sensitive Max. switched voltage: 30* VDC or 265 VAC *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory. |
| Rated Load UL, CUR | Form A 5 A at 250 VAC, Res., Standard, Ag, 100k cycles, 85°C 5 A at 30 VDC, Res., Standard, Ag, 100k cycles, 85°C 3 A at 250 VAC, Res., Sensitive, Ag, 100k cycles, 85°C 3 A at 30 VDC, Res., Sensitive, Ag, 100k cycles, 85°C 1/6 HP at 125 / 250 VAC, 100k cycles, 85°C 'T' High Current Version: Standard 10 A at 250 VAC, Res., AgCdO, 100k cycles, 85°C 10 A at 30 VDC, Res., AgCdO, 100k cycles, 85°C 1/6 HP at 125 / 250 VAC, 100k cycles, 85°C 'T' High Current Version: Sensitive 8 A at 250 VAC, Res., AgCdO, 100k cycles, 85°C 8A at 30 VDC, Res., AgCdO, 100k cycles, 85°C |
| Material | Silver Alloy, Silver Cadmium Oxide |
| Resistance | <100 milliohms initially (24 V, 1 A voltage drop method) |

COIL

| | |
|------------------------------------|---|
| Power | |
| At Pickup Voltage (typical) | 221 mW standard 113 mW sensitive |
| Max. Continuous Dissipation | 761 mW at 20°C (68°F) ambient |
| Temperature Rise | 41°C (74°F) at nominal coil voltage, standard 30°C (40°F) at nominal coil voltage, sensitive |
| Temperature | Max. 115°C (239°F) |

GENERAL DATA

| | |
|--|--|
| Life Expectancy Mechanical Electrical | Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 5 A 240 VAC Res. |
| Operate Time (typical) | 15 ms at nominal coil voltage |
| Release Time (typical) | 4 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min.) | 4000 Vrms coil to contact 750 Vrms between open contacts |
| Surge Voltage Coil to contact | 10,000V (at 1.2x50 μs) |
| Insulation Resistance | 1000 megohms min. at 20°C 500 VDC 50% RH |
| Dropout | Greater than 10% of nominal coil voltage |
| Ambient Temperature Operating | At nominal coil voltage -30°C (-22°F) to 60°C (140°F), standard -30°C (-22°F) to 80°C (176°F), sensitive -30°C (-22°F) to 85°C (185°F), Type F, standard -30°C (-22°F) to 105°C (221°F), Type F, sensitive |
| Storage | -30°C (-22°F) to 105°C (221°F) |
| Vibration | 0.062" DA at 10–55 Hz |
| Shock | 10 g operating, 100 g damage |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |
| 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 | 9 grams |

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.



AMERICAN ZETTLER, INC.

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AZ7705

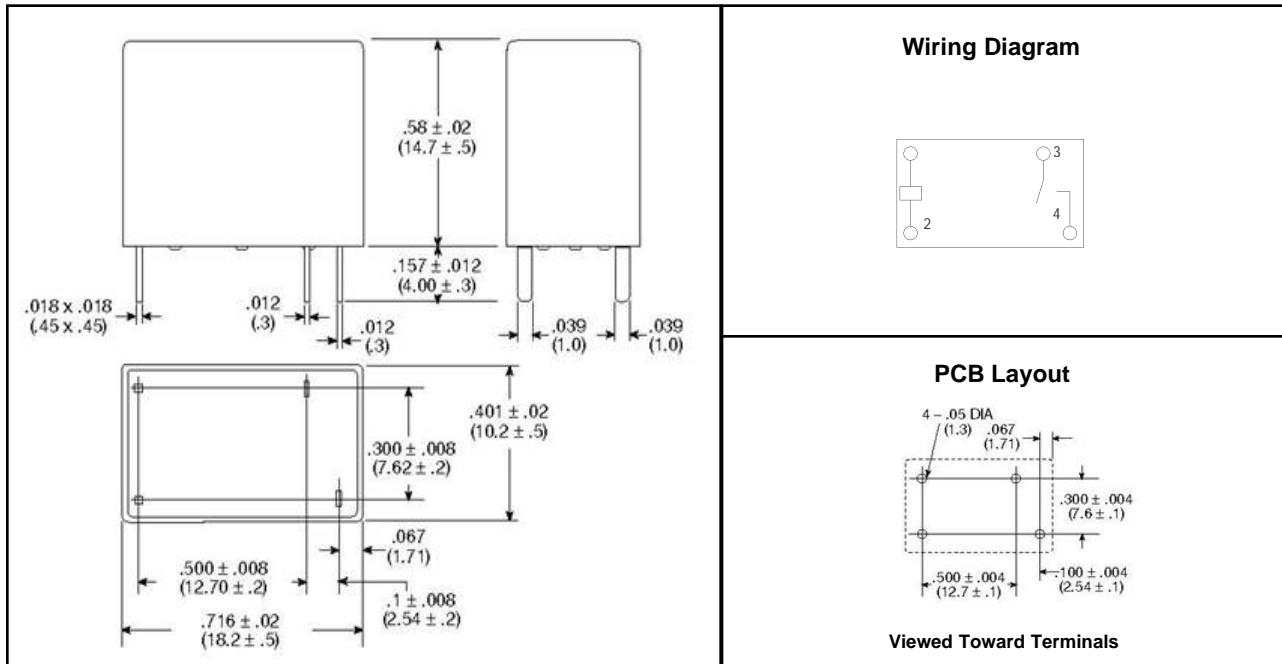
RELAY ORDERING DATA

| STANDARD RELAYS | | | | |
|---------------------|------------------|---------------------|-----------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance | Form A (SPST) |
| 3 | 2.10 | 3.9 | 20 ± 10% | AZ7705-1A-3DF |
| 5 | 3.50 | 6.5 | 55 ± 10% | AZ7705-1A-5DF |
| 6 | 4.20 | 7.8 | 80 ± 10% | AZ7705-1A-6DF |
| 9 | 6.30 | 11.7 | 180 ± 10% | AZ7705-1A-9DF |
| 12 | 8.40 | 15.6 | 320 ± 10% | AZ7705-1A-12DF |
| 18 | 12.60 | 23.4 | 720 ± 10% | AZ7705-1A-18DF |
| 24 | 16.80 | 31.2 | 1280 ± 10% | AZ7705-1A-24DF |
| 48 | 33.60 | 62.4 | 5120 ± 15% | AZ7705-1A-48DF |

| SENSITIVE RELAYS | | | | |
|---------------------|------------------|---------------------|-----------------|-----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance | Form A (SPST) |
| 3 | 2.25 | 3.9 | 45 ± 10% | AZ7705-1A-3DSF |
| 5 | 3.75 | 6.5 | 125 ± 10% | AZ7705-1A-5DSF |
| 6 | 4.5 | 7.8 | 180 ± 10% | AZ7705-1A-6DSF |
| 9 | 6.75 | 11.7 | 400 ± 10% | AZ7705-1A-9DSF |
| 12 | 9.0 | 15.6 | 720 ± 10% | AZ7705-1A-12DSF |
| 18 | 13.5 | 23.4 | 1620 ± 10% | AZ7705-1A-18DSF |
| 24 | 18.0 | 31.2 | 2800 ± 10% | AZ7705-1A-24DSF |

*Add "T" after AZ7705 for (AgCdO) high current version. Add suffix "E" after 'D' or 'DS' for epoxy sealed version.

MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"



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