AZ7705

SUBMINIATURE POWER RELAY

FEATURES

- Small footprint
- 4 kV dielectric strength, 10 kV surge
- Epoxy sealed available
- Class F insulation system 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 277 VAC *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	Form A 5 A at 277 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 / 277 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. 155°C (311°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 μ s)
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -30°C (-22°F) to 85°C (185°F), -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.

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AZ7705

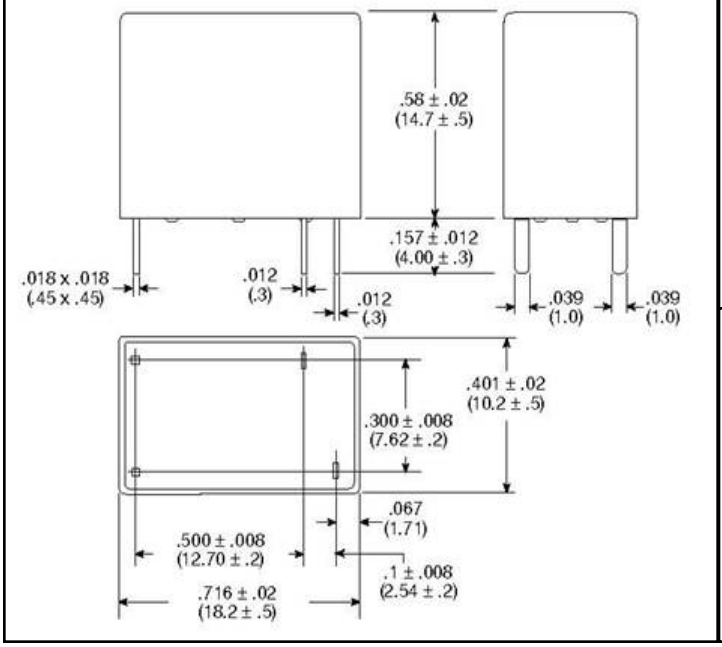
RELAY ORDERING DATA

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

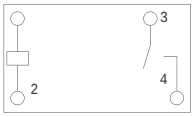
SENSITIVE RELAYS				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Form A (SPST)
3	2.25	3.9	45 ± 10%	AZ7705–1A–3DSF
5	3.75	6.5	125 ± 10%	AZ7705–1A–5DSF
6	4.5	7.8	180 ± 10%	AZ7705–1A–6DSF
9	6.75	11.7	400 ± 10%	AZ7705–1A–9DSF
12	9.0	15.6	720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

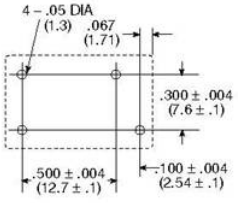
MECHANICAL DATA



Wiring Diagram



PCB Layout



Viewed Toward Terminals

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

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