

# AZ7705

## SUBMINIATURE POWER RELAY

### FEATURES

- Small footprint
- 4kV dielectric strength, 10kV surge
- Epoxy sealed available
- Class F insulation system standard
- 5 Amp switching
- High current 10A version available
- UL, CUR file E44211



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 150W (SPST-NO) standard 1250VA (SPST-NO) standard  Max. switched current: 5A AC SPST-NO standard 5A DC SPST-NO standard 3A AC/DC SPST-NO sensitive  Max. switched voltage: 30* VDC or 277VAC  *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	Form A 5A at 277VAC, Res., Standard, Ag, 100k cycles, 85°C 5A at 30VDC, Res., Standard, Ag, 100k cycles, 85°C 3A at 250VAC, Res., Sensitive, Ag, 100k cycles, 85°C 3A at 30VDC, Res., Sensitive, Ag, 100k cycles, 85°C 1/6HP at 125 / 250 / 277VAC, Ag, 100k cycles, 85°C  'T' High Current Version: Standard 10A at 250VAC, Res., AgCdO, 100k cycles, 85°C 10A at 30VDC, Res., AgCdO, 100k cycles, 85°C 1/6HP at 125 / 250VAC, AgCdO, 100k cycles, 85°C TV-5 5A, 125VAC, AgCdO  'T' High Current Version: Sensitive 8A at 250VAC, Res., AgCdO, 100k cycles, 85°C 8A at 30VDC, Res., AgCdO, 100k cycles, 85°C
<b>Material</b>	Silver Alloy, Silver Cadmium Oxide
<b>Resistance</b>	<100 milliohms initially (24V, 1A voltage drop method)

### COIL

<b>Power At Pickup Voltage (typical)</b>	221mW standard 113mW sensitive
<b>Max. Continuous Dissipation</b>	761mW at 20°C (68°F) ambient
<b>Temperature Rise</b>	41°C (74°F) at nominal coil voltage, standard 30°C (40°F) at nominal coil voltage, sensitive
<b>Temperature</b>	Max. 155°C (311°F)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 5A 240VAC Res.
<b>Operate Time (typical)</b>	15ms at nominal coil voltage
<b>Release Time (typical)</b>	4ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	4000Vrms coil to contact 750Vrms between open contacts
<b>Surge Voltage Coil to contact</b>	10,000V (at 1.2x50 μs)
<b>Insulation Resistance</b>	1000 megohms min. at 20°C 500VDC 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -30°C (-22°F) to 85°C (185°F), -30°C (-22°F) to 105°C (221°F),
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	10g operating, 100g damage
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight (approx.)</b>	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.

# AZ7705

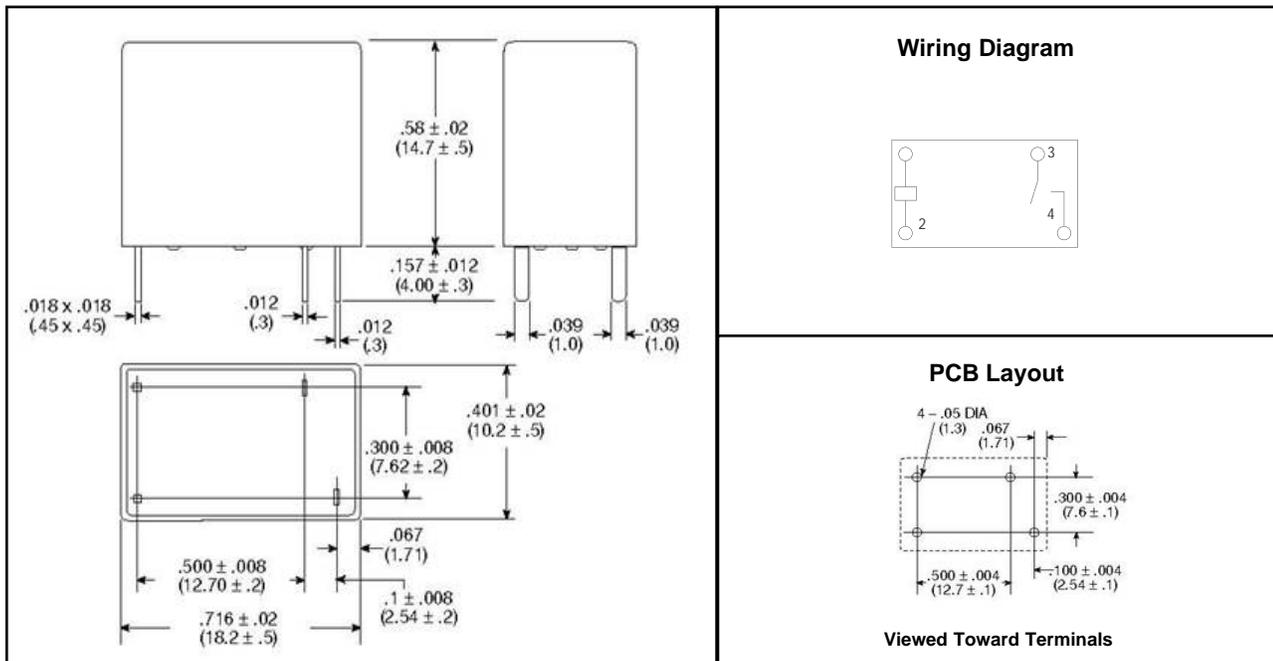
## RELAY ORDERING DATA

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 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"

# AMERICAN ZETTLER, INC.

2/11/16

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.