

# AZ7709

## SPST SUBMINIATURE POWER RELAY

### FEATURES

- 4 kV dielectric strength
- Proof tracking index (PTI/CTI) 250
- 5 Amp switching capability (version "T" 10 Amp)
- Epoxy sealed version available
- Class F insulation available
- UL, CUR file E365652
- TUV B140171811019



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 150 W or 1250 VA (Version "T": 300 W or 2500 VA) Max. switched current: 5 A (Version "T": 10 A) Max. switched voltage: 30* VDC or 250 VAC  *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	Standard Coil 5 A at 250 VAC, Res., 100k cycles, 85°C 5 A at 30 VDC, Res., 100k cycles, 85°C 1/6 HP, 125 / 250 VAC, 100k cycles, 85°C Sensitive Coil 3 A at 250 VAC, Res., 100k cycles, 85°C 3 A at 30 VDC, Res., 100k cycles, 85°C  "T" High Current Version: Standard Coil 10 A at 250 VAC, Res., 100k cycles, 85°C 10 A at 30 VDC, Res., 100k cycles, 85°C 1/6 HP, 125 / 250 VAC, 100k cycles, 85°C Sensitive Coil 8 A at 250 VAC, Res., 100k cycles, 85°C 8 A at 30 VDC, Res., 100k cycles, 85°C
<b>TÜV</b>	Standard Coil 5 A at 250 VAC / 30 VDC, Res., 100k cycles 10 A at 250 VAC / 30 VDC, Res., 100k cycles ( "T" Ver. ) Sensitive Coil 3 A at 250 VAC / 30 VDC, Res., 100k cycles 8 A at 250 VAC / 30 VDC, Res., 100k cycles ( "T" Ver. )
<b>Material</b>	Silver Cadmium, Silver Tin Oxide, Silver Alloy
<b>Resistance</b>	<100 milliohms initially (24 V, 1 A voltage drop method)

### 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.

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup>
<b>Operate Time (typical)</b>	8 ms at nominal coil voltage
<b>Release Time (typical)</b>	4 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	4000 Vrms coil to contact 1000 Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 20°C 500 VDC 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -30°C (-22°F) to 60°C (140°F) <b>Standard Coil</b> -30°C (-22°F) to 80°C (176°F) <b>Sensitive Coil</b>
<b>Storage</b>	-30°C (-22°F) to 105°C (221°F)
<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</b>	6 grams

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	.220 W standard .113 W sensitive
<b>Max. Continuous Dissipation</b>	.760 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	41°C (74°F) at nominal coil voltage, standard 22°C (40°F) at nominal coil voltage, sensitive
<b>Temperature</b>	Max. 105°C (221°F) Max. 155°C (311°F) class F

**AMERICAN ZETTLER, INC.** [www.azettler.com](http://www.azettler.com)

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## RELAY ORDERING DATA

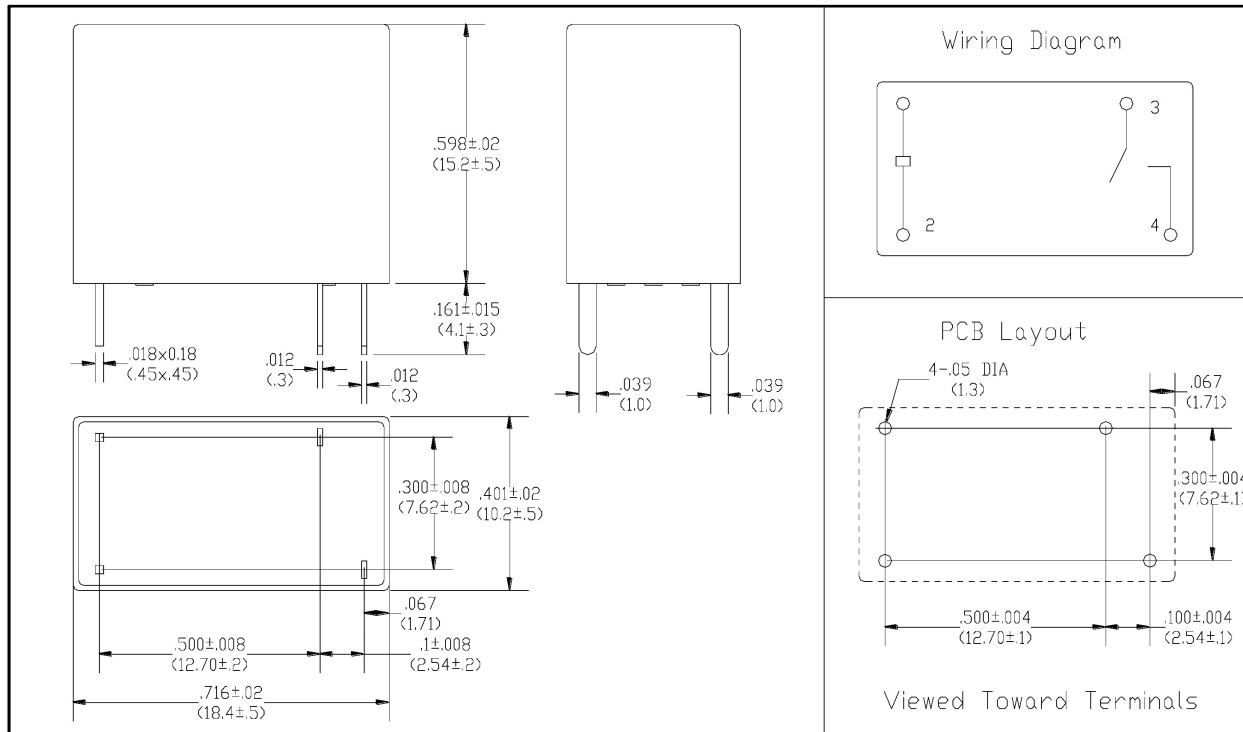
STANDARD RELAY				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Form A (SPST)
3	2.1	3.9	20 ± 10%	AZ7709-1A-3D
5	3.5	6.5	55 ± 10%	AZ7709-1A-5D
6	4.2	7.8	80 ± 10%	AZ7709-1A-6D
9	6.3	11.7	180 ± 10%	AZ7709-1A-9D
12	8.4	15.6	320 ± 10%	AZ7709-1A-12D
18	12.6	23.4	720 ± 10%	AZ7709-1A-18D
24	16.8	31.2	1,280 ± 10%	AZ7709-1A-24D
48	33.6	62.4	5120 ± 15%	AZ7709-1A-48D

SENSITIVE RELAY				
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%	AZ7709-1A-3DS
5	3.75	6.5	125 ± 10%	AZ7709-1A-5DS
6	4.5	7.8	180 ± 10%	AZ7709-1A-6DS
9	6.75	11.7	400 ± 10%	AZ7709-1A-9DS
12	9.0	15.6	720 ± 10%	AZ7709-1A-12DS
18	13.5	23.4	1620 ± 10%	AZ7709-1A-18DS
24	18.0	31.2	2800 ± 10%	AZ7709-1A-24DS

\*Add suffix "T" to AZ7709 for high current version. Add suffix "B" to "1A" for silver contacts. Add suffix "E" to "1A" for silver tin oxide contacts. Add suffix "E" for epoxy sealed version. Add suffix "G" for gold plated contacts. Add suffix "F" for class F insulation.

## MECHANICAL DATA



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

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