

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
- UL, CUR file E365652
- TÜV file B150188793002



CONTACTS

Arrangement	SPST (1 Form A)
Ratings	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 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL, CUR	Standard coil 5 A at 250 VAC, resistive, 85°C, 100k cycles [1][2][3] 5 A at 30 VDC, resistive, 85°C, 100k cycles [1][2][3] 1/6 HP at 125/250 VAC, 85°C, 100k cycles [1][2][3] Sensitive coil 3 A at 250 VAC, resistive, 85°C, 100k cycles [1][2][3] 3 A at 30 VDC, resistive, 85°C, 100k cycles [1][2][3] High capacity version "T" - Standard coil 10 A at 250 VAC, resistive, 85°C, 100k cycles [1][2][3] 10 A at 30 VDC, resistive, 85°C, 100k cycles [1][2][3] 1/6 HP at 125/250 VAC, 85°C, 100k cycles [1][2][3] High capacity version "T" - Sensitive coil 8 A at 250 VAC, resistive, 85°C, 100k cycles [1][2][3] 8 A at 30 VDC, resistive, 85°C, 100k cycles [1][2][3]
TÜV	Standard coil 5 A at 250 VAC, 100k cycles [1][2] 5 A at 30 VDC, 100k cycles [1][2] Sensitive coil 3 A at 250 VAC, 100k cycles [1][2] 3 A at 30 VDC, 100k cycles [1][2] High capacity version "T" - Standard coil 10 A at 250 VAC, 100k cycles [1][2] 10 A at 30 VDC, 100k cycles [1][2] High capacity version "T" - Sensitive coil 8 A at 250 VAC, 100k cycles [1][2] 8 A at 30 VDC, 100k cycles [1][2]
Material	Silver cadmium oxide [1], silver tin oxide [2], silver tin oxide indium oxide [3], gold plating available
Resistance	< 100 milliohms initially

GENERAL DATA

Life Expectancy Mechanical	Minimum operations 1 x 10 ⁷
Standard version Electrical	1 x 10 ⁵ at 5 A 250 VAC Res.
High capacity version "T" Electrical	1 x 10 ⁵ at 10 A 250 VAC Res.
Operate Time (max.)	8 ms at nominal coil voltage
Release Time (max.)	4 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	4000 Vrms coil to contact 1000 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution dregree: 3 Nominal voltage: 250 VAC
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
Vibration	1.65 mm 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	6 grams

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This product specification to be used only together with the application notes
which can be downloaded from <http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf>

2015-04-09

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COIL

Power	
At Pickup Voltage (typical)	220 mW (standard coil) 113 mW (sensitive coil)
Max. Continuous Dissipation	760 mW at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	41°C (74°F) standard coil 22°C (40°F) sensitive coil
Temperature	Max. 105°C (221°F) Class A Max. 155°C (311°F) Class F

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.

RELAY ORDERING DATA

STANDARD COIL				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm \pm 10	Form A (SPST)
3	2.1	3.9	20	AZ7709-1A-3D
5	3.5	6.5	55	AZ7709-1A-5D
6	4.2	7.8	80	AZ7709-1A-6D
9	6.3	11.7	180	AZ7709-1A-9D
12	8.4	15.6	320	AZ7709-1A-12D
18	12.6	23.4	720	AZ7709-1A-18D
24	16.8	31.2	1,280	AZ7709-1A-24D
48	33.6	62.4	5,120	AZ7709-1A-48D

SENSITIVE COIL				
COIL SPECIFICATIONS				ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm \pm 10%	Form A (SPST)
3	2.25	3.9	45	AZ7709-1A-3DS
5	3.75	6.5	125	AZ7709-1A-5DS
6	4.50	7.8	180	AZ7709-1A-6DS
9	6.75	11.7	400	AZ7709-1A-9DS
12	9.00	15.6	720	AZ7709-1A-12DS
18	13.50	23.4	1,600	AZ7709-1A-18DS
24	18.00	31.2	2,800	AZ7709-1A-24DS

* "1A" denote silver cadmium contacts.

Substitute "1AE" in place of "1A" for silver tin oxide contacts.

Substitute "1AB" in place of "1A" for silver tin oxide indium oxide contacts.

Substitute "AZ7709T" in place of "AZ7709" for high capacity version.

Add suffix "E" at the end of order number for sealed version.

Add suffix "G" at the end of order number for gold plated contacts.

Add suffix "F" at the end of order number for Class F version.

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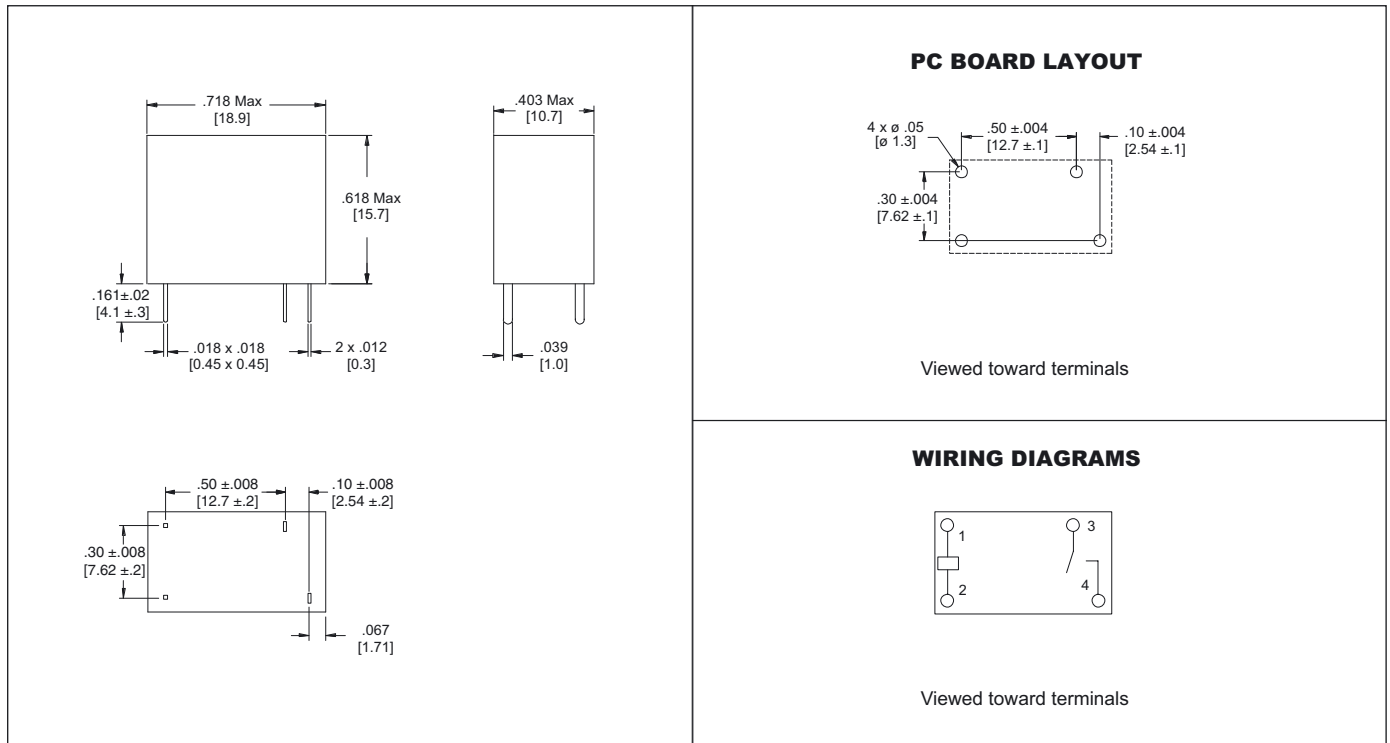
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MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010''$

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