

# AZ6961

## 10 AMP SUBMINIATURE POWER RELAY

### FEATURES

- High sensitivity, 120 mW pickup
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 8 mm
- 10 Amp switching capability
- Class B insulation standard, Class F version available
- Epoxy sealed version for automatic wave soldering and cleaning available
- UL, CUR file E44211
- VDE 131637ÜG



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) SPST (1 Form A)
<b>Ratings</b>	Resistive load:  Max. switched power: 240 W or 2500 VA Max. switched current: 10 A Max. switched voltage: 240* VDC or 440 VAC <b>UL, CUR Rating:</b> 10 A at 250 VAC resistive [1] 8 A at 30 VDC/250 VAC [1] 8 A at 30 VDC/250 VAC, 100k cycles [2] B300 Pilot Duty [1] R300 Pilot Duty [1] 1/4 HP at 125 VAC [1] 1/2 HP at 250 VAC [1]  <b>VDE Rating:</b> 8 A at 250 VAC *Note: if switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Material</b>	Silver cadmium oxide (AgCdO) [1] Silver tin oxide (AgSnO <sub>2</sub> ) [2] Gold plating available
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power At Pickup Voltage (typical)</b>	120 mW
<b>Max. Continuous Dissipation</b>	1.2 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	20°C (36°F) at nominal coil voltage
<b>Temperature</b>	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 10 million 3 X 10 <sup>5</sup> at 8 A 240 VAC res.
<b>Operate Time (typical)</b>	7 ms at nominal coil voltage
<b>Release Time (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000 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 10% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 100°C (212°F) -40°C (-40°F) to 130°C (266°F) Class B -40°C (-40°F) to 155°C (311°F) Class F
<b>Vibration</b>	Break Contact: 5g at 10...500 Hz Make Contact: 20g at 10...500 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester, UL94 V-0
<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>	8 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.
4. Class F version not VDE approved



**AMERICAN ZETTLER, INC.**

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2/17/05W

# AZ6961

## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance	Must Operate VDC	1 Form A (SPST-NO)	1 Form C (SPDT)
5	11.6	113 ± 10%	3.5	AZ6961-1A-5D	AZ6961-1C-5D
6	14.0	164 ± 10%	4.2	AZ6961-1A-6D	AZ6961-1C-6D
12	27.2	617 ± 10%	8.4	AZ6961-1A-12D	AZ6961-1C-12D
24	53.1	2350 ± 10%	16.8	AZ6961-1A-24D	AZ6961-1C-24D
48	107.3	9600 ± 15%	33.6	AZ6961-1A-48D	AZ6961-1C-48D
60	122.4	12500 ± 15%	42.0	AZ6961-1A-60D	AZ6961-1C-60D

\*Add "E" to "-1A" or "-1C" for AgSnO<sub>2</sub> contacts. Add suffix "E" for sealed version. Add suffix "A" for gold plated contacts. Add suffix "F" for Class F version.

## MECHANICAL DATA

<p><b>FORM C VERSION</b></p> <p>Top view dimensions: 1.132 Max [28.75], .494 Max [12.55], .012 [0.3].          Side view dimensions: .408 Max [10.35], .142 [3.6].          Terminal view dimensions: 2x.020 [0.5], 3x.031 [0.8], 3x.016 [0.4].</p>	<p><b>PC BOARD LAYOUT</b></p> <p>FORM C dimensions: 5xØ.051 [Ø1.3], .870 [22.1], .062 [1.57], .298 [7.56], .126 [3.2], .126 [3.2], .050 [1.3].          FORM A dimensions: 4xØ.051 [Ø1.3], .744 [18.9], .116 [2.95], .298 [7.56], .198 [5.04], .050 [1.3].</p> <p>VIEWED TOWARD TERMINALS</p>
<p><b>FORM A VERSION</b></p> <p>Top view dimensions: 1.132 Max [28.75], .494 Max [12.55], .012 [0.3].          Side view dimensions: .408 Max [10.35], .142 [3.6].          Terminal view dimensions: 2x.020 [0.5], 2x.031 [0.8], 2x.016 [0.4].</p>	<p><b>CIRCUIT DIAGRAM</b></p> <p>FORM C: Coil between terminals 1 and 2. Contact between terminals 3 and 5. Terminal 4 is common to 3 and 5.</p> <p>FORM A: Coil between terminals 1 and 2. Contact between terminals 4 and 5. Terminal 3 is common to 4 and 5.</p> <p>VIEWED TOWARD TERMINALS</p>

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



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