

# AZ697

## 10 AMP MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 10 Amp switching — single pole contacts
- UL TV-5
- Isolation spacing greater than 8mm
- UL Class B insulation system, Class F available
- UL, CUR file E44211; TÜV file R50129288



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 300W or 2770VA Max. switched current: 10A Max. switched voltage: 150VDC* or 277VAC  *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	TV-5 at 120VAC [1][2][3] 10A at 277VAC, General Use [1] 10A at 30VDC, Resistive [1] 1/3 HP at 250VAC [1] 1/4 HP at 125VAC (N.O.) [1] 10A at 277VAC, General Use, 100k cycles [2][3] 10A at 30VDC, Resistive, 100k cycles [2][3] 1/3HP at 250VAC, 100k cycles [2][3] 1/4HP at 125VAC, 100k cycles [2][3]
<b>TÜV</b>	10A at 250VAC, 30VDC Res. 100k cycles [1][2] 10A at 250VAC, 30VDC Res. 50k cycles [3]
<b>Material</b>	Silver cadmium oxide [1], silver nickel [2], silver tin oxide [3], Gold plating available
<b>Resistance</b>	< 50 milliohms initially (24V, 1A voltage drop method)

### COIL

<b>Power At Pickup Voltage (typical)</b>	257mW
<b>Max. Continuous Dissipation Temperature Rise</b>	1.9W at 20°C (68°F) ambient (Class B) 2.5W at 20°C (68°F) ambient (Class F) 34°C (61°F) at nominal 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 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 10A, 240 VAC Res.
<b>Operate Time (typical)</b>	8ms at nominal coil voltage
<b>Release Time (typical)</b>	5ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000Vrms coil to contact 1000Vrms between open contacts
<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 -40°C (-40°F) to 90°C (194°F) Class B -40°C (-40°F) to 110°C (230°F) Class 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>	0.062" DA at 10–55 Hz
<b>Shock</b>	10 g
<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>	18 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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## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohms $\pm 10\%$	Form A (SPST)	Form C (SPDT)
3	2.25	5.7	17	AZ697-1A-3D	AZ697-1C-3D
5	3.75	9.4	47	AZ697-1A-5D	AZ697-1C-5D
6	4.50	11.4	68	AZ697-1A-6D	AZ697-1C-6D
9	6.75	17.4	160	AZ697-1A-9D	AZ697-1C-9D
12	9.00	22.8	275	AZ697-1A-12D	AZ697-1C-12D
18	13.50	27.9	620	AZ697-1A-18D	AZ697-1C-18D
24	18.00	45.7	1100	AZ697-1A-24D	AZ697-1C-24D
48	36.00	89.0	4170	AZ697-1A-48D	AZ697-1C-48D
60	45.00	115.3	7000	AZ697-1A-60D	AZ697-1C-60D

\*For silver nickel contacts change "-1A" or "-1C" to "-1AB" or "-1CB". For silver tin oxide contacts change "-1A" or "-1C" to "-1AE" or "-1CE". For epoxy seal change "D" to "DE". For gold plating change "D" or "DE" to "DA" or "DEA". For Class F insulation add suffix "F" to part number. When suffix "E" is specified for Epoxy Seal, refer to AZ "Relay Technical Notes" on AZ website - Product Resources. Consult factory for other PCB process conditions that may apply.

## HARDWARE ORDERING DATA

DESCRIPTION	ORDER NUMBER	DESCRIPTION	ORDER NUMBER
Socket	ST482-U1	Retainer	ST482-2

## MECHANICAL DATA

### Form A and C

Terminal No.	Dimension Tol: $\pm 0.005$ (0.13)
1,2,3,5	0.018 (0.457) x 0.038 (0.965)
4	0.011 (0.279) x 0.038 (0.965)

### PC BOARD LAYOUT

Viewed toward terminals

2- .047 DIA (1.2)  
3- .059 DIA (1.5)  
(4 places Form A)  
(5 places Form C)

### WIRING DIAGRAM

#### Form A

#### Form C

Viewed toward terminals

### HARDWARE

#### ST482-U1

#### ST482-2

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ " unless specified.