

# AZ21501P

## 50 AMP MINIATURE LATCHING POWER RELAY

### FEATURES

- 1 Form A, B and C contacts available
- Single coil latching
- Lower cost 30A & 40A contacts available
- Class F high temperature standard
- Epoxy sealed versions available
- UL, CUR E44211



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A, or B) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 1200 W or 13850 VA Max. switched current: 50 A Max. switched voltage: 277 VAC, 110 VDC
<b>UL, CUR</b>	30A / 40A / 50A at 277VAC, 6k cycles, 25°C
<b>Material</b>	silver tin oxide
<b>Resistance</b>	< 50 milliohms initially (24 V, 1 A voltage drop method)

### COIL

<b>Power At Pickup Voltage (typical)</b>	30A, 40A : 576mW 50A : 960mW
<b>Max. Temperature</b>	Max. 155°C (311°F) Class F

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>6</sup> See contact ratings.
<b>Set Time</b>	15ms
<b>Reset Time</b>	15ms
<b>Dielectric Strength</b> (at sea level for 1 min.)	1500 Vrms contact to contact 2500 Vrms contact to coil
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC 50% RH
<b>Ambient Temperature Operating</b>	-40°C (-40°F) to 85°C (185°F)
<b>Vibration</b>	0.059" DA at 10–55 Hz
<b>Shock</b>	20 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</b>	28 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 – SINGLE COIL LATCHING					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
			30A, 40A	50A	
5	4.0	6.0	28	16.7	AZ21501P-1A-5D
12	9.6	14.4	160	96	AZ21501P-1A-12D
24	19.2	28.8	640	384	AZ21501P-1A-24D
48	38.4	57.6	2560	1536	AZ21501P-1A-48D

\*Substitute "-1B" or "-1C" in place of "-1A" for 1 Form B or 1 Form C respectively. For 30A version, add "H" after "-1A", "-1B", or "-1C". For 40A version, add "J" after "-1A", "-1B", or "-1C". Substitute "DE" in place of "D" for epoxy sealed version.

## MECHANICAL DATA

Outline Dimensions

0.146  $\pm$  0.020 max.  
(3.7  $\pm$  0.5) max.

0.020  
(0.5)

3-0.016x0.0318  
(0.4)x(0.8)

2-0.031x0.059 max.  
(0.80x1.5) max.

2-0.047 x 0.047 max.  
(1.20x0.80) max.

0.807 max.  
20.5 max.

0.5  
(12.7)

0.094  
(2.4)

1.087 max.  
(27.6) max.

1.004  
(25.5)

0.787  
(20)

0.689  
(17.5)

1.279 max.  
(32.5) max.

0.209  
(5.3)

PC Board Layout

0.606  
(15.4)

0.303  
(7.7)

0.15  
(3.8)

3- $\phi$  0.098  
 $\phi$  (2.5)

0.551  
(14)

2- $\phi$  (1.1)  
 $\phi$  0.043

0.701  
(17.8)

0.1  
(2.54)

Mounting (Bottom view)

Wiring Diagram

Form 1A      Form 1B      Form 1C

Tolerance:  $\pm .010$ "