

# AZ742

## 8 A DPDT MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- Low height: 15.7 mm
- Epoxy sealed version available
- 8 Amp switching — double pole contacts
- AC and DC coils
- Isolation spacing greater than 10 mm
- Proof tracking index (PTI/CTI) 250
- Surpasses requirements of VDE 0631/0700
- UL, CUR file E43203; VDE 119918



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) DPST (2 Form A)
<b>Ratings</b>	Resistive load: Max. switched power: 240 W or 2000 VA Max. switched current: 8 A Max. switched voltage: 150* VDC or 400 VAC  *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load</b> <b>UL, CUR</b> <b>VDE</b>	8 A at 250 VAC resistive 8 A at 250 VAC
<b>Material</b>	Silver nickel or silver nickel gold plated
<b>Resistance</b>	< 100 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	200 mW (DC coil) .422 VA (AC coil)
<b>Max. Continuous Dissipation</b>	1.7 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	26°C (47°F) at nominal coil voltage
<b>Max. Temperature</b>	115°C (239°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.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 3 x 10 <sup>7</sup> 1 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 2500 Vrms between contact sets 1000 Vrms between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 500 VDC, 20°C, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage - DC Greater than 15% of nominal coil voltage - AC
<b>Ambient Temperature</b> <b>Operating</b>  <b>Storage</b>	At nominal coil voltage -40°C (-40°F) to 90°C (194°F) - DC coils -40°C (-40°F) to 75°C (167°F) - AC coils -40°C (-40°F) to 115°C (239°F)
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	20 g
<b>Enclosure</b>	P.B.T. polyester, UL-94 : V0
<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>	14 grams



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3/3/04W

# AZ742

## RELAY ORDERING DATA

COIL SPECIFICATIONS - DC COIL				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm, $\pm 10\%$	2 Form A	2 Form C
3	2.1	7.6	22	AZ742-2A-3D	AZ742-2C-3D
5	3.5	12.7	60	AZ742-2A-5D	AZ742-2C-5D
6	4.2	15.3	90	AZ742-2A-6D	AZ742-2C-6D
9	6.3	22.9	200	AZ742-2A-9D	AZ742-2C-9D
12	8.4	30.6	360	AZ742-2A-12D	AZ742-2C-12D
18	12.6	45.9	710	AZ742-2A-18D	AZ742-2C-18D
24	16.8	61.2	1,440	AZ742-2A-24D	AZ742-2C-24D
36	25.2	92.0	3,140	AZ742-2A-36D	AZ742-2C-36D
48	33.6	122.0	5,700	AZ742-2A-48D	AZ742-2C-48D
60	42.0	153.0	7,500	AZ742-2A-60D	AZ742-2C-60D
110	77.0	280.0	25,200	AZ742-2A-110D	AZ742-2C-110D

COIL SPECIFICATIONS - AC Coil					ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance $\pm 10\%$	2 Form C
12	9.0	18.0	63.0	100	AZ742-2C-12A
24	18.0	36.0	31.3	400	AZ742-2C-24A
48	36.0	72.0	15.6	1550	AZ742-2C-48A
60	45.0	90.0	12.5	2600	AZ742-2C-60A
110	82.5	165.0	6.8	8900	AZ742-2C-110A
115	86.3	172.5	6.5	9600	AZ742-2C-115A
120	90.0	180.0	6.3	10200	AZ742-2C-120A
220	165.0	330.0	3.4	35500	AZ742-2C-220A
230	172.5	345.0	3.3	38500	AZ742-2C-230A
240	180.0	360.0	3.1	42500	AZ742-2C-240A

HARDWARE ORDERING DATA
<b>DESCRIPTION</b>
Socket
<b>ORDER NUMBER</b>
ST484-U1
<b>DESCRIPTION</b>
Retainer
<b>ORDER NUMBER</b>
ST482-3

\* Add suffix "E" for sealed version. "For gold plated contacts substitute "-2AG" for "-2A" or "-2CG" for "-2C".

## MECHANICAL DATA

Top View Dimensions: 1.142 Max [29.0], .618 Max [15.7], .154 [3.9], .295 [7.5], .098 [2.5], .591 [15.0], .197 [5.0], .098 [2.5], .197 [5.0], .098 [2.5].

Side View Dimensions: 0.500 Max [12.7], .295 [7.5].

Bottom View Dimensions: 6X .020 [0.5], 2X  $\phi$ .024 [ $\phi$ 0.6], 6X .035 [0.9], .197 [5.0], .591 [15.0], .098 [2.5], .197 [5.0].

**PC BOARD LAYOUT VIEWED TOWARDS TERMINALS**

Dimensions: .197 [5.0], .591 [15.0], .098 [2.5], .295 [7.5], 8X  $\phi$ .050 [ $\phi$ 1.3].

\* Not used on 2 Form A relay

**ST484-U1 HARDWARE**

Dimensions: .500 [12.7], 1.22 [30.9], .177 [4.5] MAX, .354 [9.0], .414 [10.5], .125 DIA (0.5), 1.28 [32.5], .366 [9.3].

**RETAINING CLIP**

Dimensions: 1.385 [35.19], .895 [22.73], .661 [16.79].

**ST482-3**

Viewed toward terminals

**WIRING DIAGRAMS VIEWED TOWARDS TERMINALS**

2 Form C: Terminal 1 is common, 2 is normally closed, 3 is normally open, 4 is normally open, 5 is normally open, 6 is normally open, 7 is normally open, 8 is normally open.

2 Form A: Terminal 1 is common, 2 is normally closed, 3 is normally open, 4 is normally open, 5 is normally open, 6 is normally open, 7 is normally open, 8 is normally open.

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



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