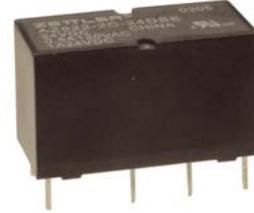


# AZ822

## SUBMINIATURE DIP RELAY

### FEATURES

- Low profile for compact board spacing
- DC coils to 48 VDC
- Life expectancy to 10 million operations
- Standard PC 0.1" grid terminal spacing
- Fits standard 16 pin IC socket
- Minimum switching load 10 mV, 10  $\mu$ A
- Epoxy sealed
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) Bifurcated crossbar contacts
<b>Ratings</b>	Resistive load: Max. switched power: 60 W or 125 VA Max. switched current: 2 A Max. switched voltage: 220 VDC* or 250 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	1.0 A at 24 VDC 0.5 A at 120 VAC
<b>Material</b>	Silver palladium, gold clad
<b>Resistance</b>	< 50 milliohms initially

### COIL

<b>Power At Pickup Voltage (typical)</b>	74 mW 3 - 12 V coils 98 mW 15 - 24 V coils 147 mW 48 V coils
<b>Max. Continuous Dissipation</b>	0.94 W at 20°C (68°F)
<b>Temperature Rise</b>	15°C (27°F) at nominal coil voltage
<b>Temperature</b>	Max. 105°C (221°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Relay adjustment may be affected if undue pressure is exerted on relay case.
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>8</sup> 5 x 10 <sup>5</sup> at 1 A 30 VDC (see table for additional figures)
<b>Operate Time (typical)</b>	5 ms at nominal coil voltage
<b>Release Time (typical)</b>	2 ms at nominal coil voltage (with no coil suppression)
<b>Capacitance</b>	Contact to contact: 1.2 pF Contact set to contact set: 1.6 pF Contact to coil: 1.5 pF
<b>Bounce (typical)</b>	At 10 mA contact current 2 ms at operate N.O. side 3 ms at operate N.C. side
<b>Dielectric Strength (at sea level for 1 min.)</b>	1000 Vrms contact to coil 1000 Vrms contact to contact 1000 Vrms between contact sets
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -55°C (-67°F) to 90°C (194°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	20 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>	4.5 grams
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

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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>

2014-06-17

# AZ822

## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
3	2.1	7.5	60	AZ822-2C-3DSE
5	3.5	12.5	167	AZ822-2C-5DSE
6	4.2	15.0	240	AZ822-2C-6DSE
9	6.3	22.5	540	AZ822-2C-9DSE
12	8.4	30.0	960	AZ822-2C-12DSE
18	12.6	40.0	1,620	AZ822-2C-18DSE
24	16.8	52.9	2,880	AZ822-2C-24DSE
48	33.6	84.9	7,680	AZ822-2C-48DSE

## MECHANICAL DATA

**PC BOARD LAYOUT**

Viewed toward terminals

**WIRING DIAGRAM**

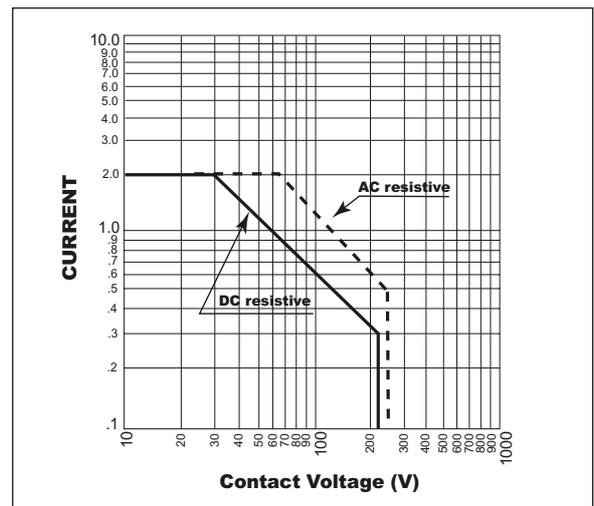
Viewed toward terminals

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

## TYPICAL CONTACT LIFE EXPECTANCY

VOLTAGE	CURRENT	NUMBER OF OPERATIONS	
		RESISTIVE LOAD	INDUCTIVE LOAD
50 mV	1 mA	$1 \times 10^7$	$1 \times 10^7$
30 VDC	1 A	$5 \times 10^5$	$15 \times 10^4$
30 VDC	0.7 A	$1 \times 10^6$	$3 \times 10^5$
30 VDC	0.3 A	$3 \times 10^6$	$1 \times 10^6$
60 VDC	0.5 A	$5 \times 10^5$	—
60 VDC	0.3 A	$1 \times 10^6$	—
60 VDC	0.2 A	$3 \times 10^6$	—
30 VAC	2 A	$5 \times 10^5$	$15 \times 10^4$
30 VAC	1.3 A	$1 \times 10^6$	$3 \times 10^5$
30 VAC	0.7 A	$3 \times 10^6$	$1 \times 10^6$
60 VAC	1 A	$5 \times 10^5$	$15 \times 10^4$
60 VAC	0.7 A	$1 \times 10^6$	$3 \times 10^5$
60 VAC	0.3 A	$3 \times 10^6$	$1 \times 10^6$
125 VAC	0.5 A	$5 \times 10^5$	$15 \times 10^4$
125 VAC	0.3 A	$1 \times 10^6$	$3 \times 10^5$
125 VAC	0.2 A	$3 \times 10^6$	$1 \times 10^6$

## Maximum Switching Capacity



- NOTES:
1. Relays operated at nominal coil voltage.
  2. Inductive load tests are at 0.7 power factor.
  3. Table represents typical life figures and are not guaranteed minimums.

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