

# AZ821/AZ831

## SUBMINIATURE DIP RELAY

### FEATURES

- Low profile for compact board spacing
- DC coils to 48 VDC
- Single button crossbar contacts
- High sensitivity, 100 mW pickup
- Life expectancy to 15 million operations
- High switching capacity, 60 W, 120 VA
- Fits standard 16 pin IC socket
- Epoxy sealed for automatic wave soldering and cleaning
- 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)
<b>Ratings</b>	Resistive load: Max. switched power: 60 W or 120 VA Max. switched current: 2 A Max. switched voltage: 150 VDC or 240 VAC
<b>Rated Load</b>	1.25 A, 100 VDC, 30 W
<b>UL</b>	0.5 A, 125 VAC
<b>CSA</b>	1.25 A, 150 VAC, 150 VDC, 30W, 50 VA
<b>Material</b>	Gold/silver alloy, gold plated
<b>Resistance</b>	< 50 milliohms initially 200 milliohms at end of life

### COIL

<b>Power At Pickup Voltage (typical)</b>	AZ821: 250 mW AZ831: 100 mW
<b>Max. Continuous Dissipation</b>	1.7 W at 20°C (68°F) 1.3 W at 40°C (104°F)
<b>Temperature Rise</b>	AZ821: 37°C (67°F) at nominal coil voltage AZ831: 18°C (32°F) at nominal coil voltage
<b>Temperature</b>	Max. 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. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b>	Minimum operations
<b>Mechanical</b>	15 x 10 <sup>6</sup>
<b>Electrical</b>	1 x 10 <sup>5</sup> at 2 A 30 VDC Res.
<b>Operate Time (typical)</b>	3 ms at nominal coil voltage
<b>Release Time (typical)</b>	2 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1500 Vrms coil to contact 1000 Vrms contact to contact
<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>Capacitance</b>	Contact to contact: 2.0 pF Contact set to contact set: 1.5 pF Contact to coil: 5.0 pF
<b>Ambient Temperature</b>	At nominal coil voltage
<b>Operating</b>	AZ821: -40°C (-40°F) to 75°C (167°F) AZ831: -40°C (-40°F) to 95°C (203°F)
<b>Storage</b>	-40°C (-40°F) to 115°C (239°F)
<b>Vibration</b>	1.5 mm DA at 10–55 Hz
<b>Shock</b>	40 g 11 ms 1/2 sine
<b>Enclosure</b>	P.B.T. polyester 94 V-0
<b>Terminals</b>	Tinned copper alloy
<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>	6 grams



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

75 COLUMBIA ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 FAX: (949) 831-8642 E-MAIL: SALES@AZETTLER.COM

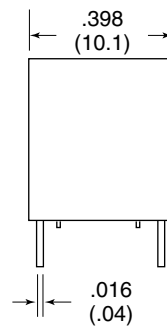
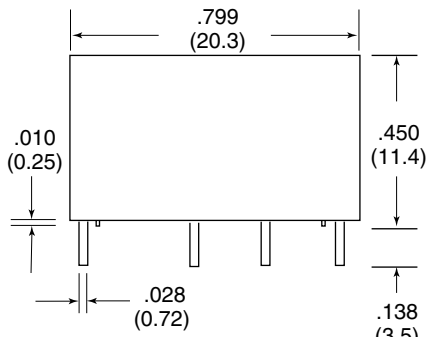
5/25/05

# AZ821/AZ831

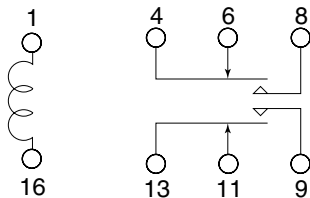
## RELAY ORDERING DATA

STANDARD COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	
5	7.8	36	3.75	AZ821-2C-5DE
6	10.9	70	4.5	AZ821-2C-6DE
9	15.4	140	6.8	AZ821-2C-9DE
12	21.8	280	9.0	AZ821-2C-12DE
24	42.2	1050	18.0	AZ821-2C-24DE
48	82.5	4000	36.0	AZ821-2C-48DE
SENSITIVE COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	
5	14.6	125	3.75	AZ831-2C-5DSE
6	17.5	180	4.5	AZ831-2C-6DSE
9	26.2	405	6.8	AZ831-2C-9DSE
12	35.0	720	9.0	AZ831-2C-12DSE
24	70.0	2,880	18.0	AZ831-2C-24DSE
48	140.0	11,520	36.0	AZ831-2C-48DSE

## MECHANICAL DATA

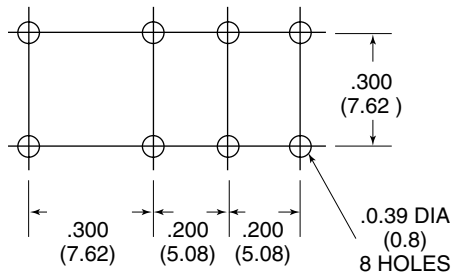


### WIRING DIAGRAM



Viewed toward terminals

### PC BOARD LAYOUT



Viewed toward terminals

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



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

75 COLUMBIA ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 FAX: (949) 831-8642 E-MAIL: SALES@AZETTLER.COM

5/25/05