

# 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, 125 VA
- Fits standard 16 pin IC socket
- 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)
<b>Ratings</b>	Resistive load: Max. switched power: 60 W or 125 VA Max. switched current: 3 A Max. switched voltage: 220 VDC or 250 VAC
<b>Rated Load UL, CUR</b>	1.0 A at 125 VAC, AZ821 0.5 A at 125 VAC, AZ831 0.3 A at 100 VDC 1.0 A at 30 VDC
<b>Material</b>	Silver nickel, gold plated
<b>Resistance</b>	< 100 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>	1.1 W at 20°C (68°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. 105°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 Mechanical Electrical</b>	Minimum operations 15 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 2 A 30 VDC Res.
<b>Operate Time (typical)</b>	5 ms at nominal coil voltage
<b>Release Time (typical)</b>	4 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1000 Vrms coil to contact 750 Vrms contact to contact
<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>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 Operating Storage</b>	At nominal coil voltage AZ821: -40°C (-40°F) to 60°C (140°F) AZ831: -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	1.5 mm DA at 10–55 Hz
<b>Shock</b>	10 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
<b>Packing unit in pcs</b>	25 per plastic tube / 1000 per carton box

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## RELAY ORDERING DATA

STANDARD COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
5	3.5	6.3	36	AZ821-2C-5DE
6	4.2	8.9	70	AZ821-2C-6DE
9	6.3	12.5	140	AZ821-2C-9DE
12	8.4	17.8	280	AZ821-2C-12DE
24	16.8	34.4	1,050	AZ821-2C-24DE
48	33.6	67.3	4,000	AZ821-2C-48DE
SENSITIVE COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	
5	3.5	11.2	125	AZ831-2C-5DSE
6	4.2	13.5	180	AZ831-2C-6DSE
9	6.3	20.3	405	AZ831-2C-9DSE
12	8.4	27.0	720	AZ831-2C-12DSE
24	16.8	54.1	2,880	AZ831-2C-24DSE
48	33.6	108.3	11,520	AZ831-2C-48DSE

## MECHANICAL DATA

### PC BOARD LAYOUT

Viewed toward terminals

### WIRING DIAGRAM

Viewed toward terminals

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

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