

# AZ943

## 15 AMP MINIATURE PC BOARD RELAY

### FEATURES

- High performance
- Low seated height
- Flux tight and sealed versions available
- Class F insulation (155°C) available
- UL, CUR file E43203
- TÜV file R50161256



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load:  Max. switched power: 300 W or 2770 VA Max. switched current: 15 A (AC), 10 A (DC) Max. switched voltage: 30 VDC or 300 VAC
<b>Rated Load UL</b>	10 A at 277 VAC, general use, 70°C, 100k cycles 10 A at 30 VDC, resistive, 70°C (N.O.) 1.5 HP at 125 VAC, 70°C, 6k cycles (N.O.)  SPST (1 Form A) 15 A at 125 VAC, general use, 70°C, 6k cycles 12 A at 120 VAC, resistive, 70°C, 6k cycles 8 A at 125 VAC, tungsten, 70°C
<b>TÜV</b>	SPDT (1 Form C) 10 A at 120 VAC, resistive, 70°C, 100k cycles (N.O.) 10 A at 120 VAC, resistive, 70°C, 6k cycles (N.C.) 7 A at 30 VDC, resistive, 70°C (N.C.)  12 A at 125 VAC, resistive, 85°C, 10k cycles 10 A at 277 VAC, resistive, 85°C, 10k cycles 5 A at 250 VAC, resistive, 85°C, 25k cycles  SPST (1 Form A) 10 A at 277 VAC, resistive, 85°C, 25k cycles
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 100 milliohms initially (at 24 V, 1 A, voltage drop method)

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	1 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 10A 277 VAC Res.
<b>Operate Time</b>	10 ms max.
<b>Release Time</b>	5 ms max. (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1500 Vrms contact to coil 1000 Vrms across contacts
<b>Insulation Resistance</b>	100 megohms min. at 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C(-40°F) to 70°C(158°F) class B -40°C(-40°F) to 85°C(185°F) class F
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 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>	10 g
<b>Packing unit in pcs</b>	20 per plastic tube / 1000 per carton box

### COIL

<b>Power</b>	
<b>At Pickup Voltage</b>	203 mW
<b>Max Continuous Dissipation</b>	1.8 W at 20°C (68°F) Class B 2.4 W at 20°C (68°F) Class F
<b>Temperature Rise</b>	32°C (58°F) at nominal coil voltage
<b>Temperature</b>	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

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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>

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## RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER*	
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	Unsealed	Sealed
5	3.8	11.2	70	AZ943-1CH-5D	AZ943-1CH-5DE
6	4.5	13.4	100	AZ943-1CH-6D	AZ943-1CH-6DE
9	6.8	20.1	225	AZ943-1CH-9D	AZ943-1CH-9DE
12	9.0	26.8	400	AZ943-1CH-12D	AZ943-1CH-12DE
18	13.5	40.2	900	AZ943-1CH-18D	AZ943-1CH-18DE
24	18.0	53.4	1,600	AZ943-1CH-24D	AZ943-1CH-24DE
36	27.0	80.1	3,600	AZ943-1CH-36D	AZ943-1CH-36DE
48	36.0	107.3	6,400	AZ943-1CH-48D	AZ943-1CH-48DE

\*Substitute "1AH" in place of "1CH" to indicate 1 Form A contact. To indicate Class F version, add suffix "F".

## MECHANICAL DATA

Top view dimensions: .748 [19.0] (width), .618 [15.7] (height), .017 [0.43] (lead length).

Side view dimensions: .600 [15.3] (width), .146 [3.7] (height), .017 [0.43] (lead length).

Detail view dimensions: .014 [0.36] (lead diameter), 4x.016 [0.4] (lead spacing), 4x.032 [0.8] (lead length), .039 [1.0] (lead diameter).

### PC BOARD LAYOUT

Dimensions: 5 x  $\varnothing .051$  [ $\varnothing 1.3$ ] (terminal diameter), .134 [3.4] (terminal pitch), .065 [1.65] (terminal offset), .472 [12.0] (terminal height), .236 [6.0] (terminal offset), .559 [14.2] (terminal width), .480 [12.2] (terminal width).

VIEWS: VIEWED TOWARDS TERMINALS

### WIRING DIAGRAMS

FORM "A"      FORM "C"

VIEWS: VIEWED TOWARDS TERMINALS

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

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