

# AZ943T

## 20 AMP SUBMINIATURE PC BOARD RELAY

### FEATURES

- 20A switching capability
- Flux tight and sealed versions available
- Double and single pin terminal available
- Class B insulation (130°C) standard
- Class F insulation (155°C) available
- UL, CUR E44211



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Form A and C Max. switched power: 4700VA Max. switched current: 20A (Form A), 17A (Form C) Max. switched voltage: 400VAC
<b>UL/CUR</b>	Normally Open 20 A at 125 VAC, Resistive, 50k cycles at 40°C 10 A at 277 VAC, Resistive, 200k cycles at 105°C TV-8 125 VAC, Tungsten, 25k cycles at 40°C(AgSnO <sub>2</sub> ) 1HP at 250 VAC (AgSnO <sub>2</sub> ) 1/2 HP at 125 VAC (AgSnO <sub>2</sub> )  Long Endurance Type 17A at 277 VAC, Res, 100k cycles at 105°C (AgNi)  Normally Closed 20 A at 125 VAC, Resistive, 6k cycles at 40°C (N.C.) 10 A at 277 VAC, Resistive, 50k cycles at 85°C (N.C.)
<b>Material</b>	Silver tin oxide; Silver Nickel;gold plating available
<b>Resistance</b>	< 100 milliohms initially (24 V, 1 A method)

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> Form A, 5 x 10 <sup>4</sup> Form C
<b>Operate Time</b>	10 ms max.
<b>Release Time</b>	5 ms max. (with no coil suppression)
<b>Dielectric Strength</b> <b>(at sea level for 1 min.)</b>	2500 VAC contact to coil 1000 VAC across contacts
<b>Insulation Resistance</b>	1000 megohms min. at 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	At nominal coil voltage -40°C(-40°F) to 85°C(185°F) Class B -40°C(-40°F) to 105°C(221°F) Class F -40°C(-40°F) to 155°C(311°F)
<b>Vibration</b>	0.059" DA at 10–55 Hz
<b>Shock(Func./Dest.)</b>	10 g / 100 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>	Approx.14 g

### COIL

<b>Power</b> <b>At Pickup Voltage</b> <b>Max Continuous</b> <b>Dissipation</b>	203 mW 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.

**AMERICAN ZETTLER, INC.**

2/11/13

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## RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER*
COIL SPECIFICATIONS				
Nominal Coil VDC	Must Operate VDC	Max Continuous VDC	Coil Resistance $\pm 10\%$	
3	2.25	3.9	25	AZ943T-1C-3D
5	3.75	6.5	70	AZ943T-1C-5D
6	4.50	7.8	100	AZ943T-1C-6D
9	6.75	11.7	225	AZ943T-1C-9D
12	9.00	15.6	400	AZ943T-1C-12D
18	13.5	23.4	900	AZ943T-1C-18D
24	18.0	31.2	1,600	AZ943T-1C-24D
48	36.0	62.4	6,400	AZ943T-1C-48D

\*Substitute "1C" for "1A" for Form A contacts. Add suffix "E" after "1C" for silver tin oxide contacts. Add suffix "P" for double pin version. Add suffix "Q" for Long Endurance Type(AgNi Only). Add suffix "E" for epoxy sealed version. Add suffix "F" for Class F insulation system. Add suffix "G" for gold plated contacts.

## MECHANICAL DATA

**Single Pin**

Outline Dimensions

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**1 Form A**

**1 Form C**

Wiring Diagram  
(Viewed from Terminals)

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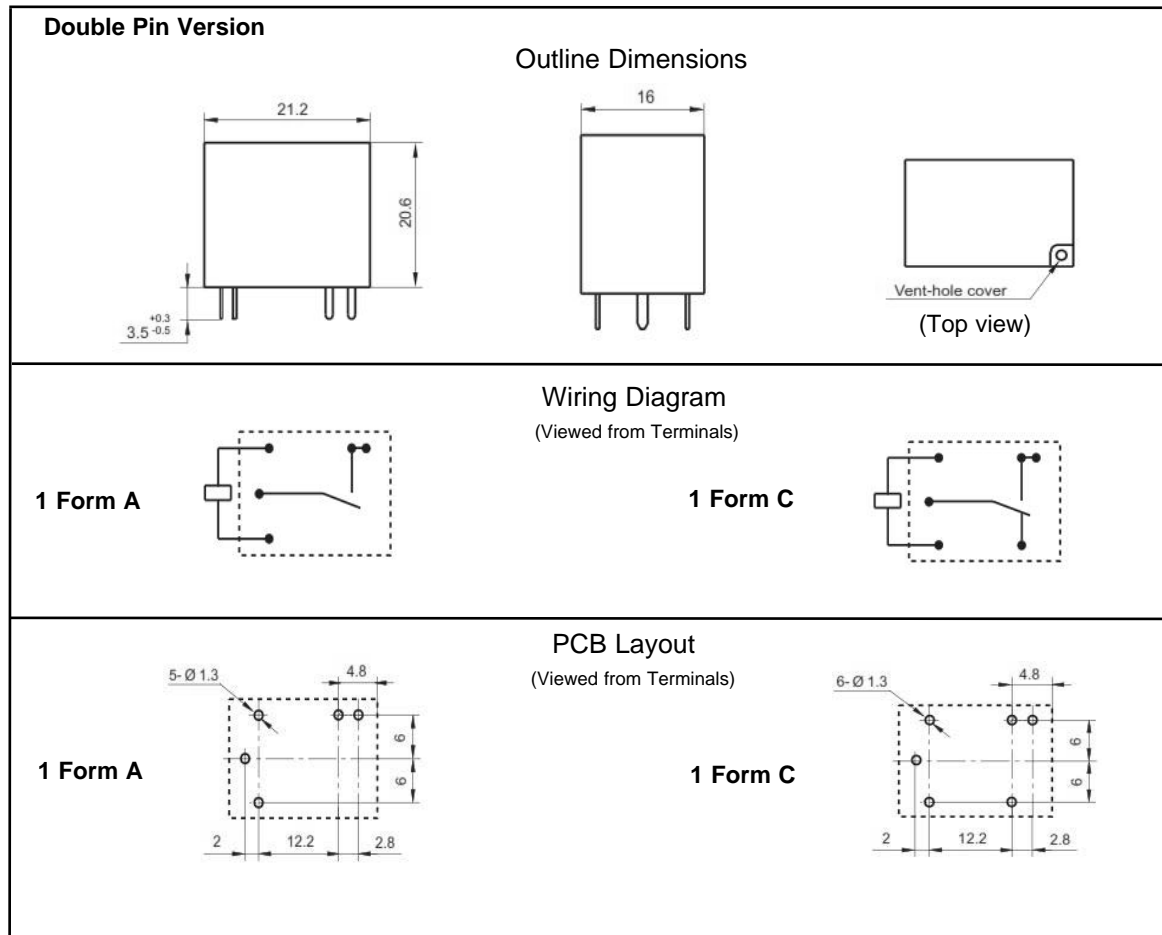
**1 Form A**

**1 Form C**

PCB Layout  
(Viewed from Terminals)

If no tolerance is shown, dimension  $\leq 1$ mm tolerance is  $\pm 0.2$ mm; dimension  $> 1$ mm and  $\leq 5$ mm tolerance is  $\pm 0.3$ mm; dimension  $> 5$ mm tolerance is  $\pm 0.4$ mm

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If no tolerance is shown, dimension  $\leq 1\text{mm}$  tolerance is  $\pm 0.2\text{mm}$ ; dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$  tolerance is  $\pm 0.3\text{mm}$ ; dimension  $> 5\text{mm}$  tolerance is  $\pm 0.4\text{mm}$