

AZ943S

15 AMP SMT MINIATURE PCB RELAY

FEATURES

- 15 Amp switching capability
- Available in SPST-N.O. and SPDT versions
- Flux tight, SMT mounting
- Compact size, low seated height
- UL Class F insulation system (155°C) available
- TÜV: R50161256
- UL / CUR file E43203



CONTACTS

Arrangement	SPST-N.O. (1 Form A), SPDT (1 Form C)
Ratings (max.)	(resistive load) switched power 300 W or 2770 VA switched current 15 A AC, 10 A DC switched voltage 30 VDC* or 300 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Loads	
UL	
1 Form A	15 A at 125 VAC, general use 10 A at 277 VAC, general use, 100k cycles TV-5 at 120 VAC ½ HP at 125 VAC 125 VA at 120 VAC, pilot duty, 100k cycles
1 Form C	10 A at 277 VAC, general use, 100k cycles ½ HP at 125 VAC (N.O.)
TÜV	
1 Form A	10 A at 277 VAC, resistive, 85°C, 25k cycles *
1 Form C	5 A at 250 VAC, resistive, 85°C, 25k cycles * 10 A at 277 VAC, resistive, 85°C, 10k cycles * 12 A at 125 VAC, resistive, 85°C, 10k cycles * * Only non gold plated versions are TÜV certified.
Contact material	AgSnO ₂ (silver tin oxide), gold plating available
Initial resistance	< 100 mΩ (1 A / 24 V - voltage drop method)

COIL

Nominal coil DC voltages	5, 6, 9, 12, 18, 24, 48
Dropout voltage	≥ 10% of nominal coil voltage
Coil power	
nominal	360 mW
at pickup voltage	203 mW
max. cont. dissipation	2.4 W at 20°C (68°F)
Temperature Rise	32 K (58°F) at nominal coil voltage
Max. temperature	Class B insulation - 130°C (266°F) Class F insulation - 155°C (311°F)

GENERAL DATA

Life Expectancy	(minimum operations) mechanical 1 x 10 ⁷ electrical 1 x 10 ⁵ at 10 A, 277 VAC, resistive
Operate Time	10 ms (max.) at nominal coil voltage
Release Time	5 ms (max.) at nominal coil voltage, without coil suppression
Dielectric Strength	(at sea level for 1 min.) 1500 V _{RMS} coil to contact 1000 V _{RMS} between open contacts
Insulation Resistance	100 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range	(at nominal coil voltage) operating -40°C (-40°F) to 85°C (185°F)
Vibration resistance	0.062" (1.5 mm) DA at 10–55 Hz
Shock resistance	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P. C.
Soldering	
max. Temperature	270 °C
max. Time	5 s
Dimensions	
length	19.25 mm (0.758")
width	15.75 mm (0.620")
height	17.20 mm (0.677")
Weight	10 grams
Compliance	UL 508, IEC 61810-1, RoHS, REACH

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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COIL VOLTAGE SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm $\pm 10\%$
5	3.8	11.2	70
6	4.5	13.4	100
9	6.8	20.1	225
12	9.0	26.8	400
18	13.5	40.2	900
24	18.0	53.4	1600
48	36.0	107.3	6400

ORDERING DATA

AZ943S-H-D

Plating option
nil: non plated
G: Gold plating

Coil insulation system
nil: Class B
F: Class F

Nominal coil voltage
see coil voltage specifications table

Contact arrangement

1A: 1 Form A (SPST-N.O.)
1C: 1 Form C (SPDT)

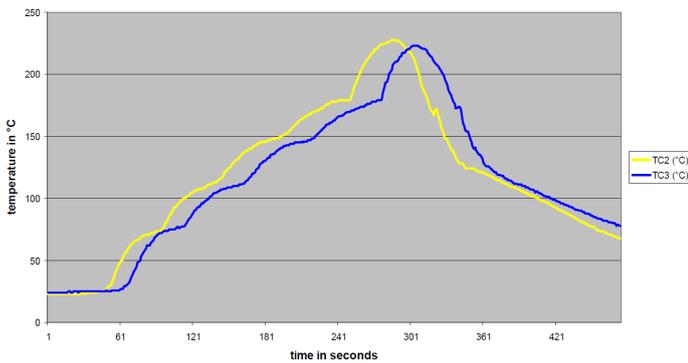
Example ordering data

AZ943S-1AH-9D 1 Form A, 9 VDC nominal coil voltage, Class B insulation, non gold plated

AZ943S-1CH-12DFG 1 Form C, 12 VDC nominal coil voltage, Class F insulation, gold plated

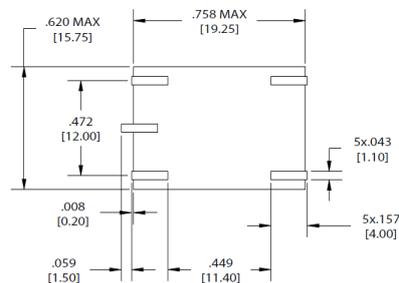
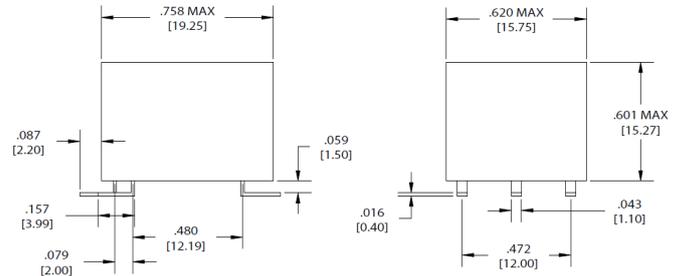
TYPICAL SOLDERING PROFILE

The soldering profile below is an example and is just to show one of various profiles the AZ943S has been tested with. In order to make sure the AZ943S fits to a specific profile, we strongly recommend to test under real environment conditions.



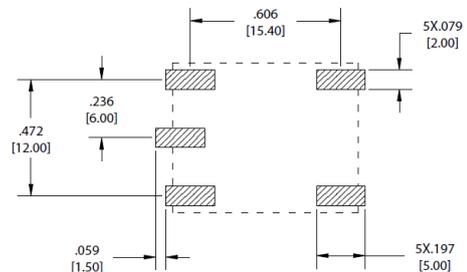
MECHANICAL DATA

Dimensions in inches with metric equivalents in parentheses.
Tolerance: $\pm 0.010"$



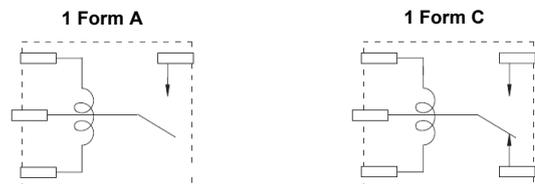
PC BOARD LAYOUT

Dimensions in inches with metric equivalents in parentheses.
Viewed towards terminals.



WIRING DIAGRAMS

Viewed towards terminals.



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DISCLAIMER

This product specification is to be used in conjunction with the application notes which can be downloaded from the regional ZETTLER relay websites. The specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.

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