

AZ21501

MINIATURE 50 A POWER RELAY

FEATURES

- 50 Amp switching capability
- 1 Form A, B and C contacts available
- Small dimensions and footprint
- Low coil power consumption
- Class F (155°C) insulation system standard
- Available with an epoxy seal for automatic wave soldering and immersion cleaning
- UL, CUR file E44211



Illustration similar

CONTACTS

Arrangement	SPST-N.O. (1 Form A) SPST-N.C. (1 Form B) SPDT (1 Form C)
Ratings (max.)	(resistive load) switched power 1500 W or 12000 VA switched current 50 A (N.O. contacts), 35 A (N.C. contacts) 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	N.O. contacts 50 A at 250 VAC, 10k cycles, resistive, 40°C 40 A at 250 VAC, 50k cycles, resistive, 40°C
	N.C. contacts 35 A at 250 VAC, 10k cycles, resistive, 40°C 30 A at 250 VAC, 50k cycles, resistive, 40°C
Contact materials	AgSnO ₂ (silver-tin-oxide)
Initial resistance	≤ 30 mΩ

COIL

Nominal coil DC voltages	see coil voltage specifications table
Dropout	> 10% of nominal coil voltage
Coil power	(typ.)
nominal	1.5 W
at pickup voltage	< 850 mW
Max. continuous dissipation	2.5 W at 20°C (68°F) ambient
Temperature Rise	56 K (133°F) at nominal coil voltage
Max. temperature	155°C (311°F) - class F coil wire

GENERAL DATA

Life Expectancy	(minimum operations)
Mechanical	1 x 10 ⁷
Electrical	5 x 10 ⁴ at 40 A 250 VAC resistive (N.O.)
Operate Time	15 ms (max.) at nominal coil voltage
Release Time	10 ms (max.) at nominal coil voltage, w/o coil suppression
Dielectric Strength	(at sea level for 1 min.) 4000 V _{RMS} coil to contact 1500 V _{RMS} between open contacts
Insulation Resistance	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
Temperature Range	(at nominal coil voltage)
Operating	-55°C (-67°F) to 85°C (185°F)
Vibration resistance	1.5 mm (0.062") DA at 10–55 Hz
Shock	20 g
Terminals	Tinned copper alloy, P. C.
Soldering	
Max. Temperature	270°C (518°F)
Max. Time	5 seconds
Cleaning	
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Dimensions	
length	32.5 mm (1.280")
width	27.6 mm (1.087")
height	20.5 mm (0.807")
Weight	30 grams
Compliance	IEC 61810-1, UL 508, RoHS, REACH
Packing unit in pcs	15 per plastic tube / 300 per carton box

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 www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf

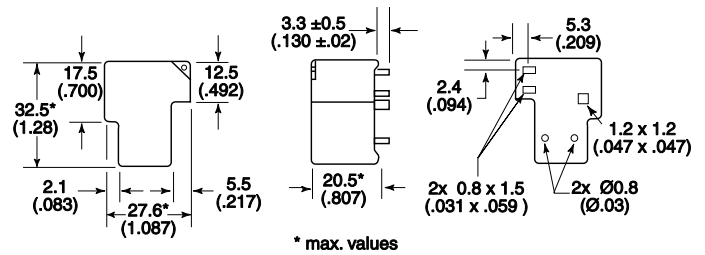
AZ21501

COIL VOLTAGE SPECIFICATIONS

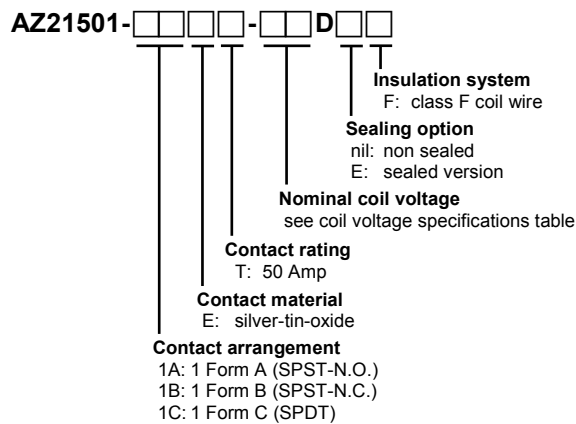
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm $\pm 10\%$
3	2.25	3.9	6
5	3.75	6.5	16.7
6	4.5	7.8	24
9	6.75	11.7	54
12	9.0	15.6	96
15	11.25	19.5	150
18	13.5	23.4	216
24	18.0	31.2	384
48	36.0	62.4	1536
110	82.5	143	8067

MECHANICAL DATA

Dimensions in mm. Inch equivalents in parentheses for information purposes.



ORDERING DATA

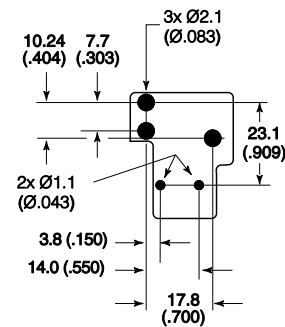


Example ordering data

AZ21501-1AET-12DF 1 Form A, 12 VDC nominal coil voltage, non sealed
AZ21501-1CET-24DEF 1 Form C, 24 VDC nominal coil voltage, sealed

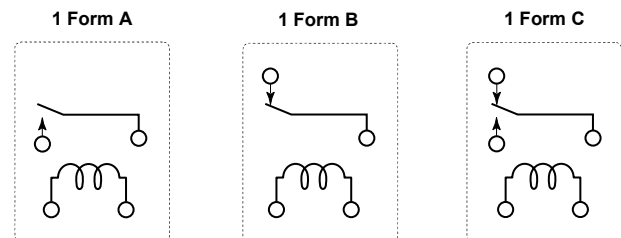
PC BOARD LAYOUT

Dimensions in mm. Inch equivalents in parentheses for information purposes. Viewed towards terminals.



WIRING DIAGRAMS

Viewed towards terminals.



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