

AZ987

30 AMP MICRO AUTOMOTIVE RELAY

FEATURES

- Up to 30 Amp switching capability in a compact size
- Form A and Form C contacts available
- Single and Dual (Twin) relay versions
- Designed for high in-rush applications
- Epoxy sealed
- ISO/TS 16949, ISO 9001, ISO 14000
- Tested in accordance with J2544



CONTACTS

Arrangement	SPST (1 Form A) DPST (2 Form A) SPDT (1 Form C) DPDT (2 Form C)
Ratings	Resistive load: Max. switched power: 480 W Max. switched current: 30 A / 25 A (N.O. / N.C.) Max. switched voltage: 16 VDC Rated load: 30 A at 16 VDC
Material	Silver tin oxide
Resistance	< 50 milliohms initially (6 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	187 mW
Max. Continuous Dissipation	2.6 W at 20°C (68°F) ambient
Temperature Rise	34°C (61°F) at nominal coil voltage
Max Temperature	155°C (311°F)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁶ 3 x 10 ⁵ at 20 A 14 VDC Res.
Operate Time	3 ms typical at nominal coil voltage
Release Time	1.5 ms typical at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	500 Vrms coil to contact 500 Vrms between open contacts
Insulation Resistance	100 megohms min. at 20°C, 500 VDC 50% RH
Dropout	Greater than 12.5% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 105°C (221°F) -40°C (-40°F) to 105°C (221°F)
Vibration	6 g at 10-500 Hz
Shock	30 g, 6 ms
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Weight	4 / 8 grams (Single / Twin)
Max. Solder Temp.	260°C (500°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Packing unit in pcs Single Twin	25 per plastic tube / 2000 per carton box 10 per plastic tube / 1000 per carton box

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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

COIL SPECIFICATIONS					
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	ORDER NUMBER*	
				Form A (DPST)	Form C (DPDT)
6	3.5	13.2	63	AZ987-1A-6DT	AZ987-1C-6DT
10	5.7	22.0	181	AZ987-1A-10DT	AZ987-1C-10DT
12	6.9	26.0	254	AZ987-1A-12DT	AZ987-1C-12DT

* Substitute "1A" or "1C" with "2A" or "2C" to indicate Twin relay.
Substitute "DT" with "DET" for epoxy sealed version.

MECHANICAL DATA

SINGLE RELAY

Top view dimensions: 12.3 max., 2.50, 0.60, 7.65 ± 0.3 , 10.20 max., 0.40, 5.80, 2.80 ± 0.2 .

Side view dimensions: 13.22 max., 0.95.

Bottom view dimensions: 10.20 ± 0.1 , 3.60 ± 0.1 , 3.00 ± 0.1 , 1.36 ± 0.1 , 2 x 1.20 x 0.60, 2 x $\varnothing 0.50$, 1.00 x 1.00, 0.5 ± 0.1 , 7.5 ± 0.1 , 1.75 ± 0.1 , 8.5 ± 0.1 .

PC BOARD LAYOUTS

SINGLE RELAY

Dimensions: 0.50 ± 0.1 , 2 x $\varnothing 1.10$, 3.60 ± 0.1 , 10.20 ± 0.1 , 3.00 ± 0.1 , 3 x $\varnothing 1.8$, 7.00 ± 0.1 , 8.00 ± 0.1 .

* not used on 1 Form A version

TWIN RELAY

Dimensions: 4 x $\varnothing 1.10$, 0.50 ± 0.1 , 8.00 ± 0.1 , 7.00 ± 0.1 , 0.60 ± 0.05 , 7.20 ± 0.1 , 3.00 ± 0.05 , 6 x $\varnothing 1.8$, 7.00 ± 0.1 , 8.00 ± 0.1 , 19.20 ± 0.2 , 0.50 ± 0.1 .

* not used on 2 Form A version

Viewed toward component side

TWIN RELAY

Top view dimensions: 24.0 max., 2.50, 0.60, 7.65 ± 0.3 , 10.20 max., 0.40, 2.80 ± 0.2 .

Side view dimensions: 13.22 max., 0.95.

Bottom view dimensions: 2 x 1.00 x 1.00, 4 x 1.20 x 0.60, 4 x $\varnothing 0.50$.

WIRING DIAGRAMS

SINGLE RELAY

* not used on 1 Form A version

TWIN RELAY

* not used on 2 Form A version

Viewed toward terminals

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