# **AZ9871**

# 30 AMP MICRO AUTOMOTIVE RELAY

## **FEATURES**

- Up to 30 Amp switching capability in a compact size
- Form A and C contacts available (single or twin relay)
- · Vibration and shock resistant
- Epoxy sealed version available
- Designed for high in-rush applications
- Cost effective
- Single and Dual (Twin) relay versions
- ISO/TS 16949, ISO14001
- Tested in accordance with SAE J2544



Arrangement	SPST (1 Form A) DPST (2 Form A) SPDT (1 Form C) DPDT (2 Form C)				
Ratings	Resistive load: Max. switched power: 280 W Max. switched current: 30 A / 25A N.O. / N.C. Max. switched voltage: 24 VDC  Rated load: 20 A at 14 VDC (Form A) 20/15 A at 14 VDC (Form C)				
Material	Silver tin oxide (silver nickel available - contact factory)				
Resistance	< 50 milliohms initially (3 milliohms at 10A)				

#### 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 <sup>7</sup> 1 x 10 <sup>5</sup> 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	1000 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 155°C (311°F)		
Vibration	6 g at 10-500 Hz		
Shock	30 g, 6 ms		
Enclosure	P.B.T. polyester		
Terminals	Tinned copper alloy, P.C.		
Max Solder Temp.	270°C (518°F)		
Max Solder Time	5 seconds		
Max Solvent Temp.	80°C (176°F)		
Max Immersion Time	30 seconds		
Weight	4 grams (single) 8 grams (twin)		



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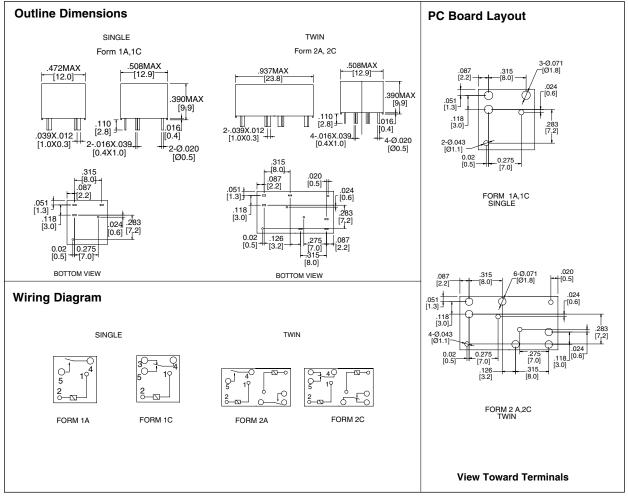
## **RELAY ORDERING DATA**

STANDARD RELAYS - 1 FORM A, 1 FORM C (SINGLE)						
COIL SPECIFICATIONS ORDER NUMBER*					ER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	1 Form A (SPST)	1 Form C (SPDT)	
10	5.7	22.0	181	AZ9871-1A-10DT	AZ9871-1C-10DT	
12	6.9	26.0	254	AZ9871-1A-12DT	AZ9871-1C-12DT	

STANDARD RELAYS - 2 FORM A, 2 FORM C (TWIN)						
COIL SPECIFICATIONS ORDER NUMBER*				ER*		
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	2 Form A (DPST)	2 Form C (DPDT)	
10	5.7	22.0	181	AZ9871-2A-10DT	AZ9871-2C-10DT	
12	6.9	26.0	254	AZ9871-2A-12DT	AZ9871-2C-12DT	

<sup>\*</sup>Change "D" to "DE" for sealed version. Add suffix "A" for gold plated contacts.

#### **MECHANICAL DATA**



Dimensions in inches with millimeters in brackets below. Tolerance: ± .010"

