AZ9891J

30 AMP SUB-MICRO AUTOMOTIVE RELAY

FEATURES

- Up to 30 Amp switching capability in a very compact size
- Vibration and shock resistant
- Designed for power windows, door locks and wiper motors, seat adjusters, and more
- Epoxy sealed for automatic wave soldering
- ISO/TS 16949, ISO9001, ISO14000
- High Reliability
- Single and Dual (Twin) relay versions
- Standard and sensitive coils offered
- High operating temp. (105°C) available

CONTACTS

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

COIL

Power	
At Nominal Voltage (typical)	230mW for Standard Coil 234mW for Sensitive Coil
Max. Continuous Dissipation	2.2W at 20°C (68°F) ambient 40°
Temperature Rise	C (72°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 1 x 10^5 at 25A 14VDC locked motor
Operate Time	10ms typical at nominal coil voltage
Release Time	10ms typical at nominal coil voltage
Dielectric Strength (at sea level for 1 min.)	500VAC coil to contact 500VAC between open contacts
Insulation Resistance	100 megohms min. at 500 VDC 85% RH (at 40°C)
Dropout	Greater than 8.3% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) 'T' version 105°C (221°F) -40°C (-40°F) to 130°C (266°F)
Vibration	4.5g at 10-500Hz
Shock	10g operational, 100g destructive
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp	270°C (518°F)
Max. Solder Time	3 seconds
Max. Solvent Temp	80°C (176°F)
Max. Immersion Time	30 Seconds
Weight	4.1 grams

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RELAY ORDERING DATA

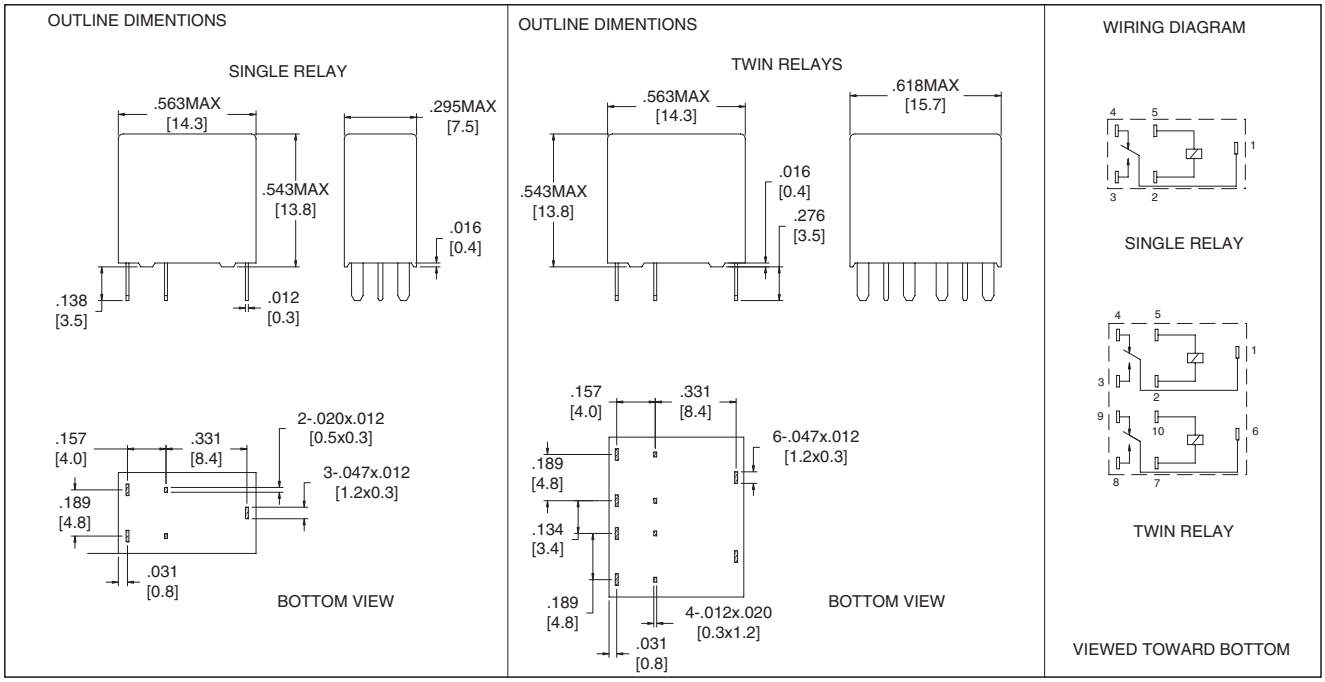
STANDARD RELAYS - 1 Form C SINGLE COIL				
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	1 Form C (SPDT)
12	7.2	16.0	225	AZ9891J–1C–12DE
Sensitive Coil				
12	6.5	16.0	180	AZ9891J–1C–12DSE

add 'T' after 'J' for high temp. version

STANDARD RELAYS - 2 Form C TWIN COIL				
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	2 Form C (DPDT)
12	7.2	16.0	225	AZ9891J–2C–12DE

add 'T' after 'J' for high temp. version

MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

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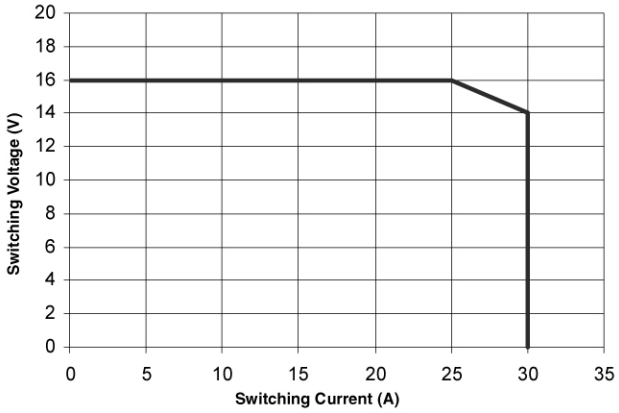
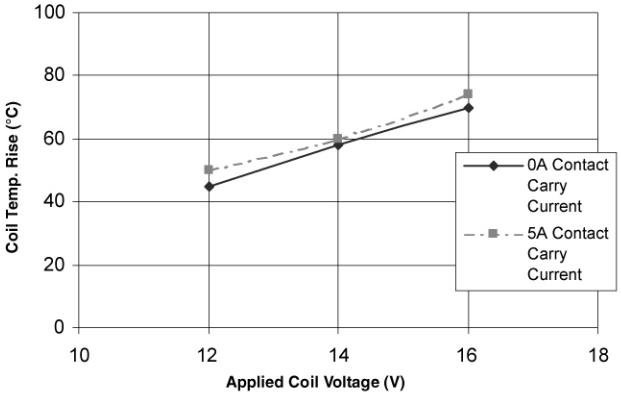
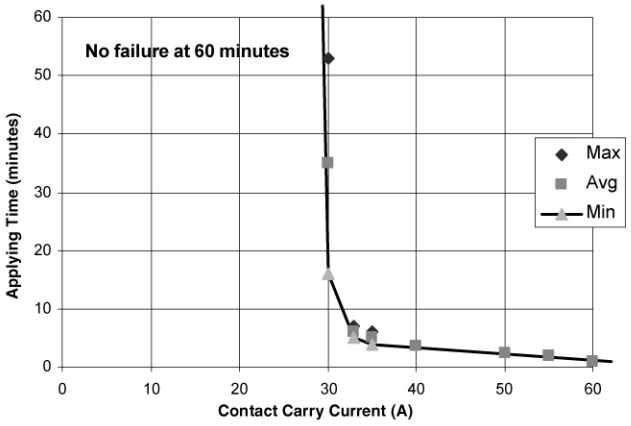
Load Limit Curve



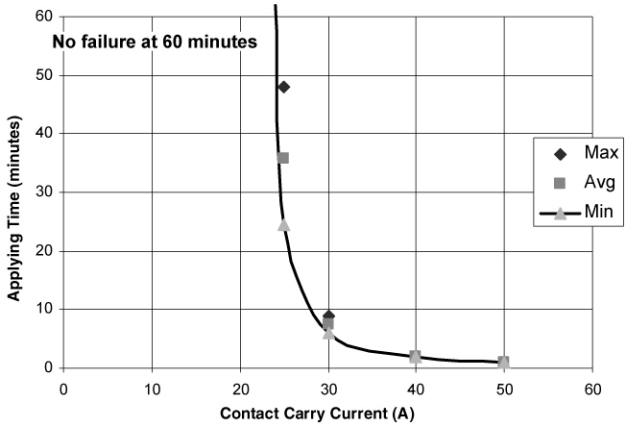
Coil Temperature vs. Applied Voltage at 20°C (225Ω coil)



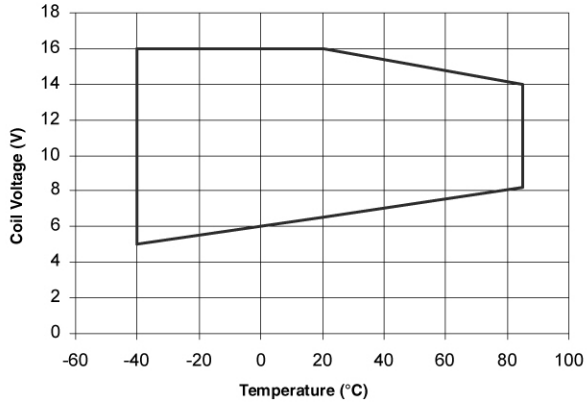
Overcurrent Energization (20°C, 225Ω coil)



Overcurrent Energization (85°C, 225Ω coil)



Operating Voltage Range (180Ω coil)



Operating Voltage Range (225Ω coil)