

# AZ9891

## 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
- Cost effective
- Single and Dual (Twin) relay versions



### CONTACTS

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

### COIL

<b>Power At Pickup Voltage (typical)</b>	230mW
<b>Max. Continuous Dissipation</b>	2.2W at 20°C (68°F) ambient
<b>Temperature Rise</b>	40°C (72°F) at nominal coil voltage
<b>Max Temperature</b>	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

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 25A 14VDC locked motor
<b>Operate Time</b>	10ms typical at nominal coil voltage
<b>Release Time</b>	5ms typical at nominal coil voltage
<b>Dielectric Strength (at sea level for 1 min.)</b>	500VAC coil to contact 500VAC between open contacts
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC 85% RH (at 40°C)
<b>Dropout</b>	Greater than 8.3% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	At nominal coil voltage -40°C (-40°F) to 105°C (221°F) -40°C (-40°F) to 155°C (311°F)
<b>Vibration</b>	4.5g at 10-500Hz
<b>Shock</b>	10g operational, 100g destructive
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp</b>	270°C (518°F)
<b>Max. Solder Time</b>	3 seconds
<b>Max. Solvent Temp</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 Seconds
<b>Weight</b>	4.1 grams

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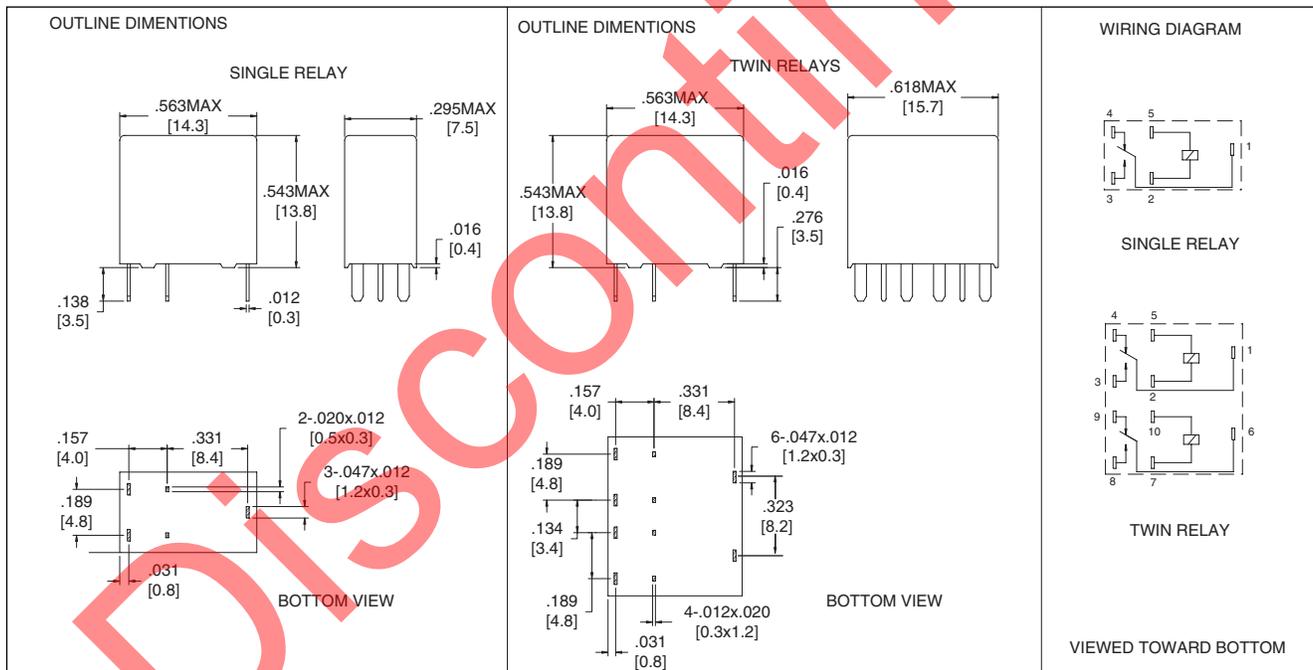
## RELAY ORDERING DATA

STANDARD RELAYS - 1 Form C				
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form C (SPDT)
12	7.2	18.0	225	AZ9891-1C-12DE
Sensitive Coil				
12	6.5	20.0	180	AZ9891-1C-12DSE

## RELAY ORDERING DATA

STANDARD RELAYS - 2 Form C				
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	2 Form C (SPDT)
12	7.2	18.0	225	AZ9891-2C-12DE
Sensitive Coil				
12	6.5	20.0	180	AZ9891-2C-12DSE

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "

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11/30/18

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This 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.