

# AZ9882

## 40 AMP MICRO-ISO AUTOMOTIVE RELAY

### FEATURES

- Quick Connect or PCB terminals
- Up to 40 Amp switching capability in a compact size
- Coils up to 12 and 24VDC
- Small footprint
- SPST (1 Form A), SPDT (1 Form C)
- Vibration and shock resistant
- Coil suppression available
- 90A Inrush N.O. Terminal



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
	Resistive load: Max. switched power: 560W Max. switched current: 40A Max. switched voltage: 28VDC
<b>Ratings</b>	12V coil: 40A at 14VDC resistive 1 Form A 35A at 14VDC resistive 1 Form A 35A at 14VDC resistive 1 Form C (N.O.) 20A at 14VDC resistive 1 Form C (N.C.)  24V coil: 15A at 28VDC resistive 1 Form A 20A at 28VDC resistive 1 Form A 15A at 28VDC resistive 1 Form C (N.O.) 8A at 28VDC resistive 1 Form C (N.C.)
<b>Material</b>	Silver tin oxide (silver nickel available - contact factory)
<b>Resistance</b>	< 50 milliohms initially (6VDC, 1A voltage drop method)
<b>Contact Voltage drop</b>	100mV typical, 250mV max. at rated load

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	540mW (Standard)
<b>Max. Continuous Dissipation</b>	3.6W at 20°C (68°F) ambient
<b>Temperature Rise</b>	60°C (108°F) at nominal coil voltage
<b>Max Temperature</b>	180°C (356°F)

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 35A, 14VDC Res.
<b>Operate Time (max.)</b>	10ms at nominal coil voltage
<b>Release Time (max.)</b>	10ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	500Vrms coil to contact 500Vrms between open contacts
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500VDC 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	At nominal coil voltage -40°C (-40°F) to 125°C (257°F) -40°C (-40°F) to 155°C (320°F)
<b>Vibration</b>	DA 1.5mm 10-50Hz
<b>Shock</b>	100m/s <sup>2</sup> , 11ms
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Quick connects or PCB Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
<b>Max Solder Temp.</b>	270°C (518°F)
<b>Max Solder Time</b>	5 seconds
<b>Max Solvent Temp</b>	80°C (176°F)
<b>Max Immersion Time</b>	30 seconds
<b>Weight (Approx.)</b>	18 ngrams

### 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.

# AZ9882

## RELAY ORDERING DATA

COIL SPECIFICATIONS - STANDARD			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$
12	7.2	18	96
24	14.4	36	320

## RELAY ORDERING DATA

### AZ9882-1C-12DER

- Blank - Standard no diode, no resistor
- R - 680 Ohm parallel with 12 V standard coil  
2700 Ohm parallel with 24 V standard coil
- D1 - 1N4005 diode in parallel with coil, anode on terminal #86
- Blank - Unsealed
- E - Sealed
- 12D - 12 VDC coil
- 24D - 24 VDC coil
- 1A - Single pole normally open
- 1C - Single pole double throw
- Basic Series Designation - AZ9882

## MECHANICAL DATA

**Outline Dimensions**

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

**BOTTOM VIEW**

**Wiring Diagram**

**1 form C**

**1 form A**

**R1**

**D1**