

AZ978

20 AMP MINIATURE PCB POWER RELAY FOR AUTOMOTIVE USE

FEATURES

- Up to 20 Amp switching capability in a compact size
- Coils to 24 VDC
- Small footprint
- 1 Form A and C contacts available
- Vibration and shock resistant
- QS9000, ISO9001, ISO14000
- Cost effective
- Designed for high in-rush applications



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 280 W Max. switched voltage: 20 A Max. switched voltage: 150 VDC* Rate load: 20 A at 14 VDC 1 Form A: 20 A at 12 VDC 1 Form C: 20 A (N.O.)/10 A (N.C.) at 12 VDC * If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Material	Silver tin oxide
Resistance	< 50 milliohms initially (6V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	534 mW (Standard)
Max. Continuous Dissipation	2.6 W at 20°C (68°F) ambient
Temperature Rise	60°C (108°F) at nominal coil voltage
Max Temperature	160°C (320°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 20 A 14 VDC Res.
Operate Time (max.)	10 ms max. at nominal coil voltage
Release Time (max.)	7 ms max. at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1000 VDC coil to contact 500 VDC between open contacts
Insulation Resistance	100 megohm min. at 20°C, 500 VDC 50% RH
Dropout	Greater than 8.3% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 115°C (239°F) -40°C (-40°F) to 155°C (311°F)
Vibration	0.062" DA at 10-55 Hz
Shock	10 g
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	16 grams

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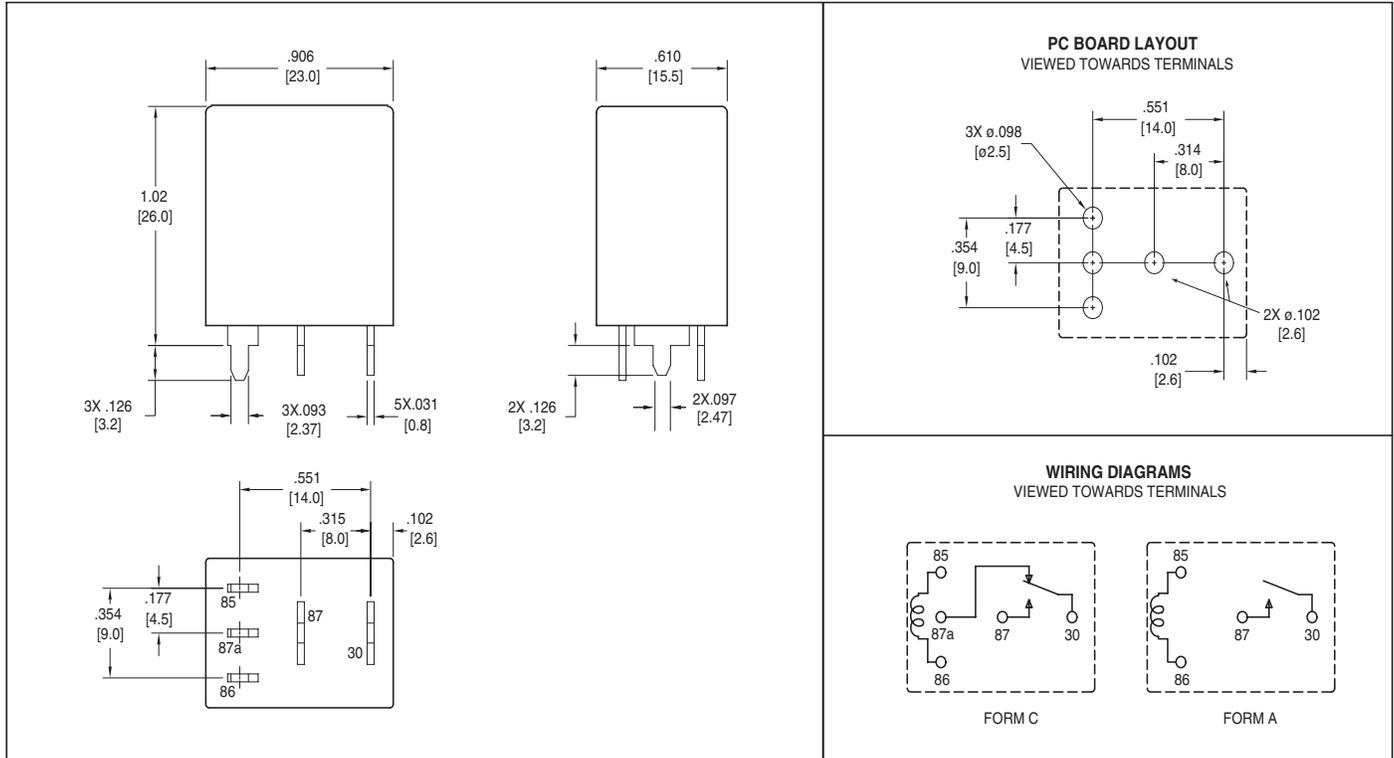
RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER*	
COIL SPECIFICATIONS				Form A (SPST)	Form C (SPDT)
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
6	3.6	7.8	25	AZ978-1A-6D	AZ978-1C-6D
12	7.2	15.6	97	AZ978-1A-12D	AZ978-1C-12D
24	14.4	31.2	384	AZ978-1A-24D	AZ978-1C-24D

SENSITIVE RELAYS				ORDER NUMBER*	
COIL SPECIFICATIONS				Form A (SPST)	Form C (SPDT)
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
6	3.6	7.8	32	AZ978-1A-6DS	AZ978-1C-6DS
12	7.2	15.6	123	AZ978-1A-12DS	AZ978-1C-12DS
24	14.4	31.2	483	AZ978-1A-24DS	AZ978-1C-24DS

*Add suffix "R" for resistor in parallel with coil. Resistor values: 6V: 180 ohms, 12V: 680 ohms, 24V: 2700 ohms.

MECHANICAL DATA



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

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6/4/10

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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.