

# AZ947

## 20 AMP SUBMINIATURE PCB POWER RELAY FOR AUTOMOTIVE USE

### FEATURES

- Low cost
- 20 Amp contact rating
- Low profile, small footprint
- High operating temperature (85°C)
- SPST (1 Form A), SPDT (1 Form C)
- ISO/TS 16949, ISO 14001



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPST NODM (1 Form U) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 280 W, 1250 VA Max. switched voltage: 50 VDC* or 250 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.  20 A at 14 VDC Res. (make) 15 A at 14 VDC Res. (break)
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 50 milliohms initially (6 V, 1 A voltage drop method)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	222 mW
<b>Max. Continuous Dissipation</b>	1.09 W at 20°C (68°F) ambient
<b>Temperature Rise</b>	44°C (79°F) at nominal coil voltage
<b>Max Temperature</b>	105°C (221°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>7</sup> 1 x 10 <sup>5</sup> at 20 A 14 VDC Res.
<b>Operate Time (max.)</b>	10 ms max. at nominal coil voltage
<b>Release Time (max.)</b>	5 ms max. at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	500 VAC coil to contact 500 VAC between open contacts
<b>Insulation Resistance</b>	100 megohms min. at 20°C, 500 VDC 50% RH
<b>Dropout</b>	Greater than 5% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10-55 Hz
<b>Shock</b>	10 g
<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>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 Seconds
<b>Weight</b>	6 g

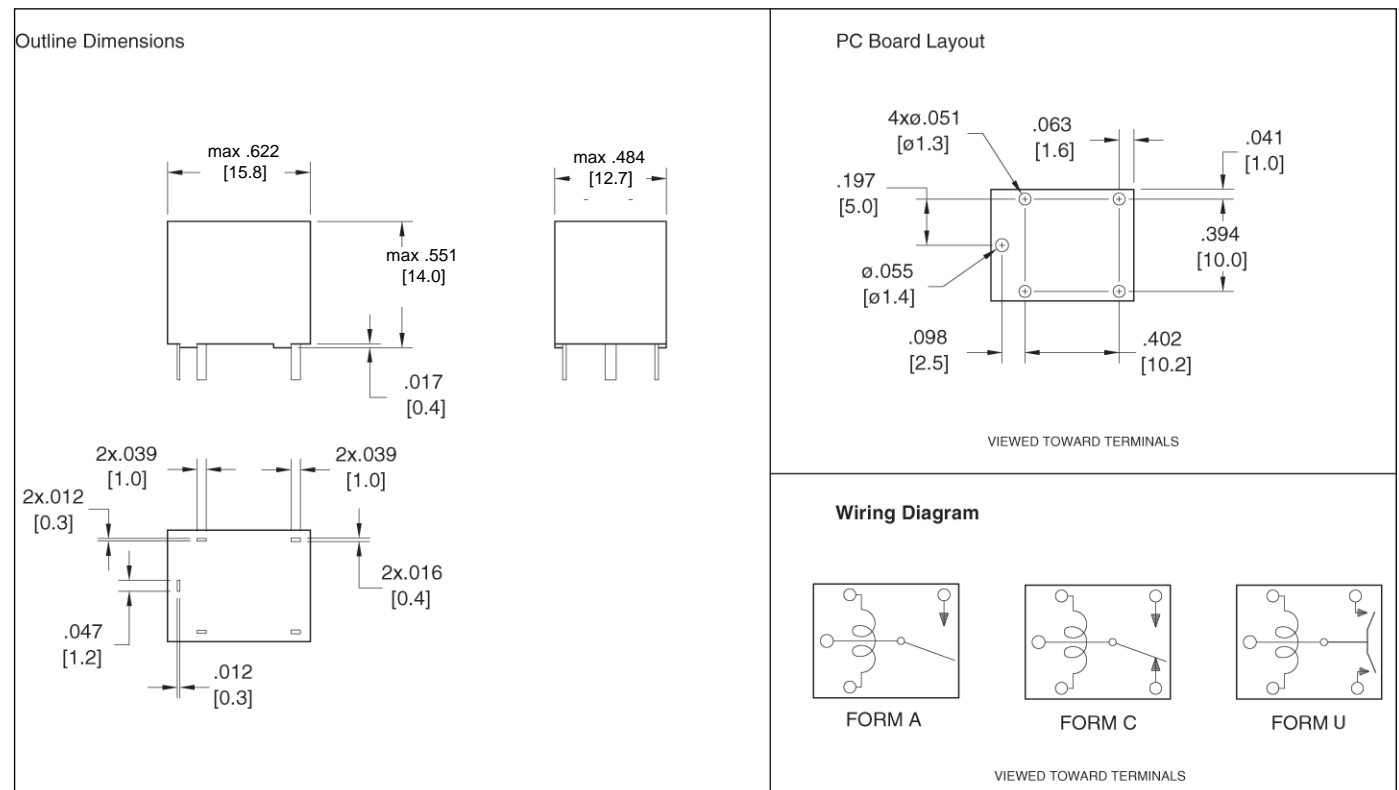
**AMERICAN ZETTLER, INC.**

## RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	SPST	SPDT
6	3.6	8.1	60	AZ947-1A-6D	AZ947-1C-6D
9	5.4	12.2	135	AZ947-1A-9D	AZ947-1C-9D
12	7.3	16.2	240	AZ947-1A-12D	AZ947-1C-12D
24	14.4	32.5	960	AZ947-1A-24D	AZ947-1C-24D

\* For 1U version, replace 1A or 1C with 1U. Add suffix "E" for epoxy sealed version.

## MECHANICAL DATA



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