

# AZ1651

## MINIATURE POWER RELAY

### FEATURES

- Plug in/Solder terminals
- SPDT through 4PDT arrangement
- High switching capacity
- AC and DC coils
- UL, CUR file E43203
- TÜV R50359828



### CONTACTS

<b>Arrangement</b>	SPDT (1 Form C) DPDT (2 Form C) 3PDT (3 Form C) 4PDT (4 Form C)
<b>Ratings</b>	See chart on page 2
<b>UL, CUR</b>	See chart on page 2
<b>TUV</b>	5A@ 220Vac/28Vdc, 100K 70°C (Standard Duty only)
<b>Material</b>	Silver cadmium oxide
<b>Resistance</b>	< 50 milliohms initially (24V, 1A voltage drop method)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	DC: 576 mW, 6 to 48 VDC 704 mW, 110 VDC AC: .768 VA
<b>Max. Continuous Dissipation</b>	DC: 1.2 W (110 V : 1.5 W) at 20°C (68°F) AC: 1.7 VA at 20°C (68°F)
<b>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

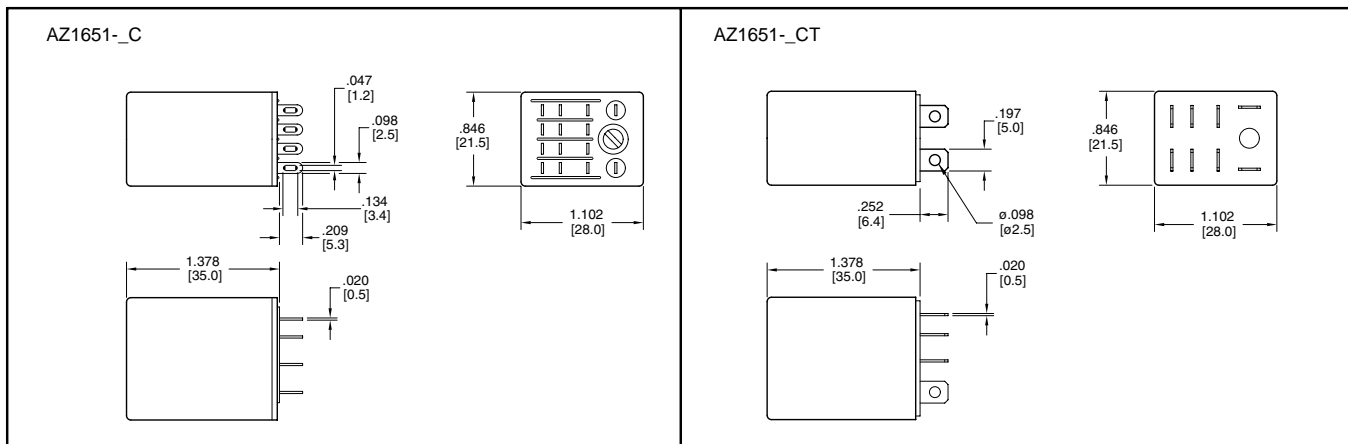
<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 2 x 10 <sup>7</sup> operations 1 x 10 <sup>5</sup> operations at rated load
<b>Operate Time</b>	25 msec max. at nominal coil voltage
<b>Release Time</b>	25 msec at nominal coil voltage (without suppression)
<b>Dielectric Strength</b> <b>(at sea level for 1 min.)</b>	1500 Vrms coil to contact 1000 Vrms contact to contact 1000 Vrms between contact sets
<b>Insulation Resistance</b>	100 megohms min. at 500 VDC, 20°C, 50% RH
<b>Dropout</b>	DC: > 10% of nominal coil voltage AC: > 30% of nominal coil voltage
<b>Ambient Temperature</b> <b>Operating</b> <b>Storage</b>	-55°C (-67°F) to 70°C (158°F) -55°C (-67°F) to 105°C (221°F)
<b>Vibration</b>	0.062" DA at 10–55 Hz
<b>Shock</b>	20 g
<b>Enclosure</b>	Polycarbonate
<b>Terminals</b>	PC/Plug-in
<b>Max. Solder Temp.</b>	250°C (482°F)
<b>Max. Solder Time</b>	5 seconds
<b>Weight</b>	37 grams

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## CONTACT RATINGS

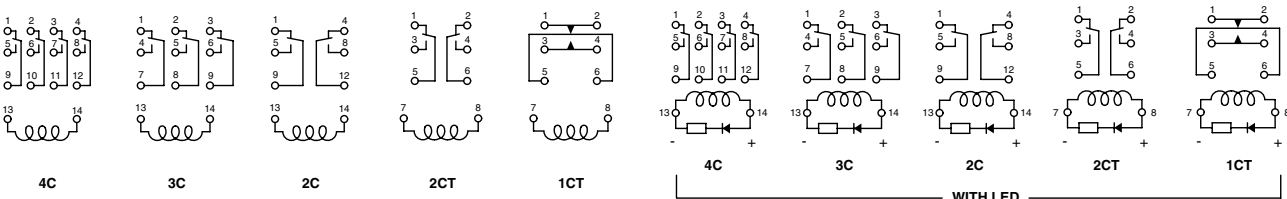
<b>Maximum Ratings</b>	<b>SPDT Heavy duty, resistive load:</b> Max. Switched Power: 560 W, 5540 VA Max. Switched Current: 20 A Max. Switched Voltage: 28 VDC, 277 VAC	<b>UL/CUR Ratings</b>	<b>SPDT Heavy duty:</b> 20 A, 277 VAC, General use 20 A, 28 VDC, General use
	<b>DPDT Heavy duty, resistive load:</b> Max. Switched Power: 560 W, 5540 VA Max. Switched Current: 10 A Max. Switched Voltage: 28 VDC, 277 VAC		<b>DPDT Heavy duty:</b> 10 A, 277 VAC, General use 10 A, 28 VDC, General use 1/2 HP, (9.8A) 125 VAC, Motor load
	<b>DPDT, 3PDT Standard duty, resistive load:</b> Max. Switched Power: 280 W, 2500 VA Max. Switched Current: 10 A Max. Switched Voltage: 28 VDC, 220 VAC		<b>DPDT, 3PDT, Standard duty:</b> 10 A, 220 VAC, General use 10 A, 28 VDC, General use
	<b>4PDT, Standard duty, resistive load:</b> Max. Switched Power: 280 W, 2500 VA Max. Switched Current: 5 A Max. Switched Voltage: 28 VDC, 220 VAC		<b>4PDT, Standard duty:</b> 5A, 220 VAC, General use 5A, 28 VDC, General use

## MECHANICAL DATA



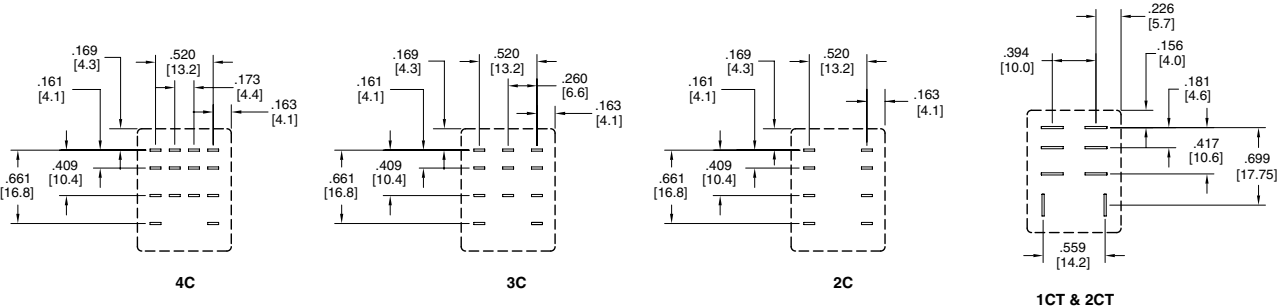
## WIRING DIAGRAM

Viewed Towards Terminal



## TERMINAL LAYOUTS

Viewed Towards Terminal



**AMERICAN ZETTLER, INC.**

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75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

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## RELAY ORDERING DATA

STANDARD RELAYS: DC Coil					
COIL SPECIFICATIONS					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA $\pm 10\%$	Coil Resistance	
6	4.8	6.6	150.0	40.0 $\pm 10\%$	AZ1651-2C-6D
12	9.6	13.2	75.0	160 $\pm 10\%$	AZ1651-2C-12D
24	19.2	26.4	36.9	650 $\pm 10\%$	AZ1651-2C-24D
48	38.4	52.8	18.5	2600 $\pm 15\%$	AZ1651-2C-48D
110	88.0	121.0	10.0	11,000 $\pm 15\%$	AZ1651-2C-110D

STANDARD RELAYS: AC Coil (50/60 Hz)					
COIL SPECIFICATIONS					ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance	
6	4.8	7.1	200.0	11.5 $\pm 10\%$	AZ1651-2C-6A
12	9.6	14.3	100.0	46.0 $\pm 10\%$	AZ1651-2C-12A
24	19.2	28.6	50.0	184 $\pm 10\%$	AZ1651-2C-24A
48	38.4	57.1	25.0	735 $\pm 10\%$	AZ1651-2C-48A
120	96.0	143.0	10.0	4,550 $\pm 10\%$	AZ1651-2C-120A
220	176.0	261.0	5.5	14,400 $\pm 15\%$	AZ1651-2C-220A

\* For 3PDT or 4PDT substitute "-3C" or "-4C" for "-2C". For LED add "1" to the end of p/n.

## RELAY ORDERING DATA

HEAVY DUTY RELAYS: DC Coil					
COIL SPECIFICATIONS					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA $\pm 10\%$	Coil Resistance	
6	4.8	6.6	150.0	40.0 $\pm 10\%$	AZ1651-1CT-6D
12	9.6	13.2	75.0	160 $\pm 10\%$	AZ1651-1CT-12D
24	19.2	26.4	36.9	650 $\pm 10\%$	AZ1651-1CT-24D
48	38.4	52.8	18.5	2600 $\pm 15\%$	AZ1651-1CT-48D
110	88.0	121.0	10.0	11,000 $\pm 15\%$	AZ1651-1CT-110D

HEAVY DUTY RELAYS: AC Coil (50/60 Hz)					
COIL SPECIFICATIONS					ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	Coil Resistance	
6	4.8	7.1	200.0	11.5 $\pm 10\%$	AZ1651-1CT-6A
12	9.6	14.3	100.0	46.0 $\pm 10\%$	AZ1651-1CT-12A
24	19.2	28.6	50.0	184 $\pm 10\%$	AZ1651-1CT-24A
48	38.4	57.1	25.0	735 $\pm 10\%$	AZ1651-1CT-48A
120	96.0	143.0	10.0	4,550 $\pm 10\%$	AZ1651-1CT-120A
220	176.0	261.0	5.5	14,400 $\pm 15\%$	AZ1651-1CT-220A
240	192.0	288.0	5.0	22,000 $\pm 15\%$	AZ1651-1CT-240A

\* For DPDT substitute "-2CT" for "-1CT". For LED add "1" to the end of p/n.

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