

AZ1641

MINIATURE POWER RELAY

FEATURES

- PC Terminals
- SPDT through 4PDT arrangement
- High switching capacity
- AC and DC coils
- UL, CUR file E43203
- TÜV R50359828



CONTACTS

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

COIL

Power	
At Pickup Voltage (typical)	DC: 576mW, 6 to 48VDC 704mW, 110VDC AC: 0.768VA
Max. Continuous Dissipation	DC: 1.2W (110V : 1.5W) at 20°C (68°F) AC: 1.7VA at 20°C (68°F)
Temperature	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

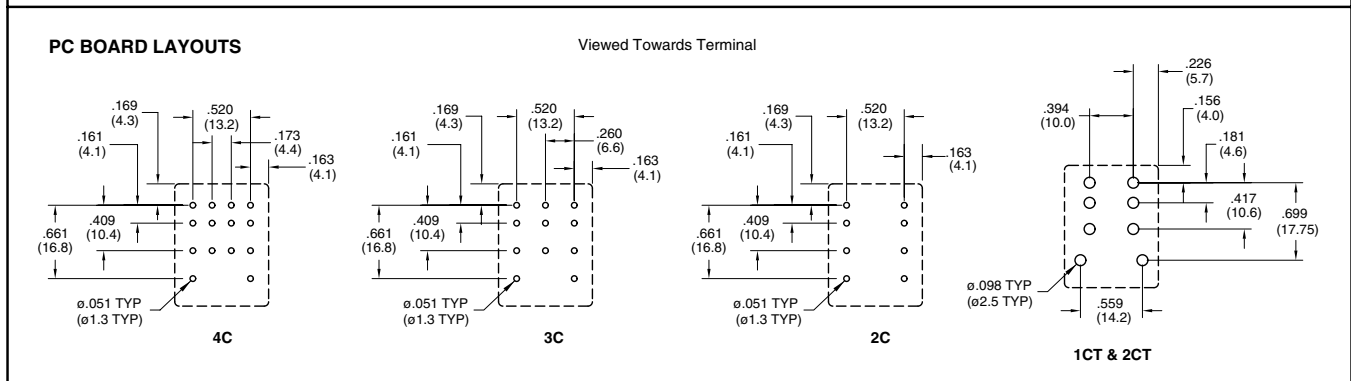
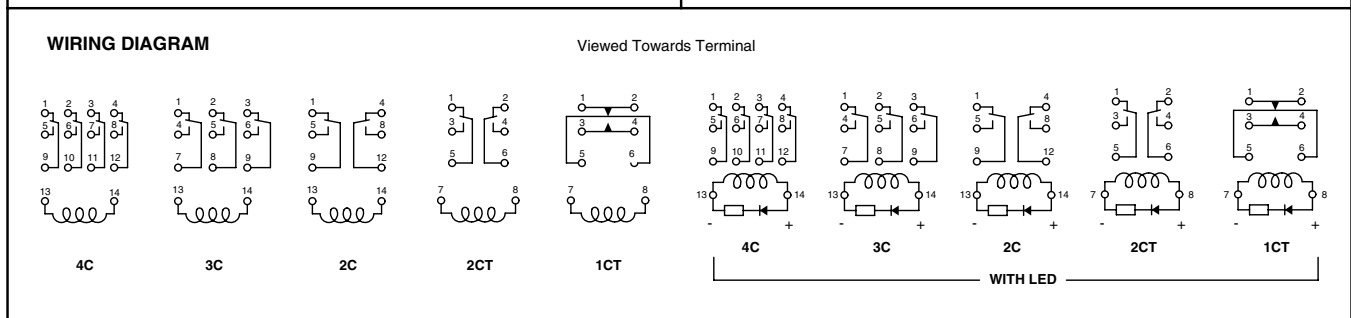
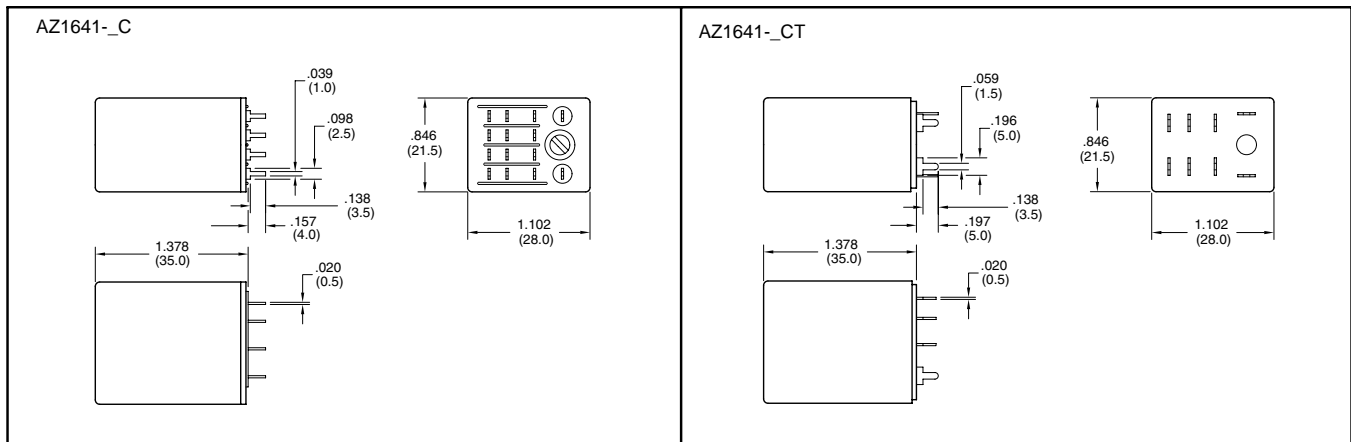
Life Expectancy Mechanical Electrical	Minimum operations 2 x 10 ⁷ operations 1 x 10 ⁵ operations at rated load
Operate Time	25ms max. at nominal coil voltage
Release Time	25ms at nominal coil voltage (without suppression)
Dielectric Strength (at sea level for 1 min.)	1500Vrms between contact and coil 1000Vrms contact to contact 1000Vrms between contact sets
Insulation Resistance	100 megohms min. at 500VDC, 20°C, 50% RH
Dropout	DC: > 10% of nominal coil voltage AC: > 30% of nominal coil voltage
Ambient Temperature Operating Storage	-40°C (-40°F) to 70°C (158°F) -55°C (-67°F) to 105°C (221°F)
Vibration	0.062" DA at 10–55 Hz
Shock	10 g
Enclosure	Polycarbonate
Terminals	PC
Max. Solder Temp.	250°C (482°F)
Max. Solder Time	5 seconds
Weight (approx.)	37 grams

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CONTACT RATINGS

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

MECHANICAL DATA



AMERICAN ZETTLER, INC. www.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 Ohms $\pm 10\%$	
6	4.8	6.6	150.0	40	AZ1641-2C-6D
12	9.6	13.2	75.0	160	AZ1641-2C-12D
24	19.2	26.4	36.9	650	AZ1641-2C-24D
48	38.4	52.8	18.5	2600	AZ1641-2C-48D
110	88.0	121.0	10.0	11,000	AZ1641-2C-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 Ohms $\pm 10\%$	
6	4.8	7.1	200.0	11.5	AZ1641-2C-6A
12	9.6	14.3	100.0	46	AZ1641-2C-12A
24	19.2	28.6	50.0	184	AZ1641-2C-24A
48	38.4	57.1	25.0	735	AZ1641-2C-48A
120	96.0	143.0	10.0	4,550	AZ1641-2C-120A
220	176.0	261.0	5.5	14,400	AZ1641-2C-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 Ohms $\pm 10\%$	
6	4.8	6.6	150.0	40	AZ1641-1CT-6D
12	9.6	13.2	75.0	160	AZ1641-1CT-12D
24	19.2	26.4	36.9	650	AZ1641-1CT-24D
48	38.4	52.8	18.5	2600	AZ1641-1CT-48D
110	88.0	121.0	10.0	11,000	AZ1641-1CT-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 Ohms $\pm 10\%$	
6	4.8	7.1	200.0	11.5	AZ1641-1CT-6A
12	9.6	14.3	100.0	46	AZ1641-1CT-12A
24	19.2	28.6	50.0	184	AZ1641-1CT-24A
48	38.4	57.1	25.0	735	AZ1641-1CT-48A
120	96.0	143.0	10.0	4,550	AZ1641-1CT-120A
220	176.0	261.0	5.5	14,400	AZ1641-1CT-220A
240	192.0	288.0	5.0	22,000	AZ1641-1CT-240A

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

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