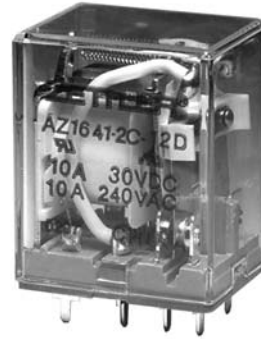


AZ1641

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

AZ1641

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

AZ1641_C

AZ1641_CT

WIRING DIAGRAM Viewed Towards Terminal

PC BOARD LAYOUTS Viewed Towards Terminal

AZ1641

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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10/13/2016

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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.