

AZ 5 SERIES SUBMINIATURE PCB RELAY

Features

- Subminiature Size for High-Density Packaging
- Coil Sensitivity to 100mW
- Extremely Low Cost
- Coil Voltages to 24VDC
- Epoxy Sealed for Automatic Wave Soldering
- 1 Amp & 2 Amp Contacts
- Life Expectancy to 10 Million Operations
- Meets FCC Part 68.302 1,500V Lightning Surge
- Meets FCC Part 68.304 1,000V Dielectric
- UL File E43203; CSA File 74120

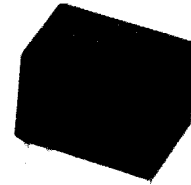
Specifications

Contacts	
Arrangement	SPDT (1 Form C) welded crossbar construction
Rating	Noninductive load
Light Duty	Max switched power: 30W or 60VA Max switched current: 1 Amp Max switched voltage: 150VDC or 300VAC UL Rating: 1A @ 30VDC, 0.5A @ 120VAC
Heavy Duty	Max switched power: 60W or 120VA Max switched current: 2 Amp Max switched voltage: 150VDC or 300VAC UL Rating: 2A @ 30VDC, 1A @ 120VAC
Material	Light Duty: Silver alloy, gold clad Heavy Duty: Silver alloy
Resistance	50 milliohms initially

Coil	
Power at Pickup Voltage (typical)	Standard coil: 220mW Sensitive coil: 100mW
Max Continuous Dissipation	1.1W @ 20C (68F) ambient 0.8W @ 40C (104F) ambient
Temperature Rise (at nominal voltage)	Standard: 40C (104F) Sensitive: 22C (72F)

General Data	
Life Expectancy	Minimum operations
Mechanical	10,000,000
Electrical (standard duty)	500,000 @ 1A, 30VDC
(heavy duty)	400,000 @ 0.5A, 120VAC 200,000 @ 2A, 30VDC 200,000 @ 1A, 120VAC
Operate Time (typical)	Standard: 3ms at nominal voltage Sensitive: 5ms at nominal voltage
Release Time (typical)	1 ms at nominal coil voltage with no coil suppression
Capacitance	Coil to contact: 3.0 pF Contact to contact: 3.0 pF
Bounce (typical)	At 10 mA contact current 2ms at operate, 8ms at release
Dielectric Strength (at sea level)	1,000Vrms coil to contact 500Vrms between open contacts Meets FCC Part 68.302 1,500V lightning surge & Part 68.304 1,000V dielectric
Insulation Resistance	100 megohms min @ 20C (68F), 500VDC, 50% RH
Dropout	> 10% of nominal coil voltage
Ambient Temp (operating)	At nominal coil voltage Standard: -25C (-13F) to 60C (140F) Sensitive: -15C (-13F) to 75C (167F)
(storage)	-25C (-13F) to 105C (221F)
Vibration	0.062" DA @ 10-55 Hz
Shock	Standard: 10g. Sensitive: 6g
Enclosure	P.B.T. Polyester
Terminals	Tinned copper alloy
Max Solder Temp	270C (518F)
Max Solder Time	5 seconds
Immersion Time	30 seconds maximum
Weight	3.5 grams

Notes	
1	All values at 20C (68F) unless otherwise indicated
2	Relay may pull in with less 'Must Operate' value
3	Other coil resistances and sensitivities available upon request
4	Specifications subject to change without notice



Relay Ordering Data

Standard Relays - 1 Form C (SPDT)

Coil Specifications				ORDER NUMBER	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	AZ 5X Footprint	AZ 5Y Footprint
5	6.8	56	3.5	AZ 5X-1C-5DE	AZ 5Y-1C-5DE
6	8.1	80	4.2	AZ 5X-1C-6DE	AZ 5Y-1C-6DE
12	16.2	320	8.4	AZ 5X-1C-12DE	AZ 5Y-1C-12DE
24	32.4	1,280	16.8	AZ 5X-1C-24DE	AZ 5Y-1C-24DE

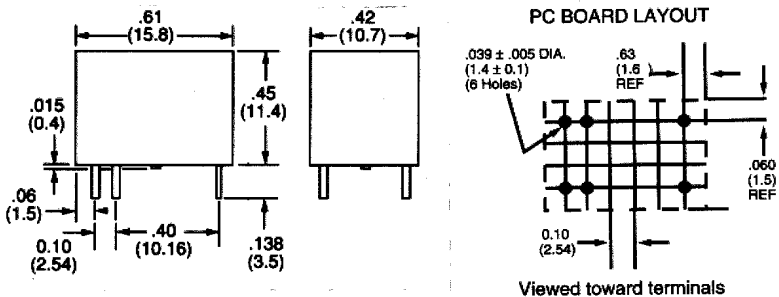
Sensitive Relays - 1 Form C (SPDT)

Coil Specifications				ORDER NUMBER	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	AZ 5X Footprint	AZ 5Y Footprint
5	10.0	120	3.5	AZ 5X-1C-5DSE	AZ 5Y-1C-5DSE
6	12.0	180	4.2	AZ 5X-1C-6DSE	AZ 5Y-1C-6DSE
12	24.0	700	8.4	AZ 5X-1C-12DSE	AZ 5Y-1C-12DSE
24	48.0	2,800	16.8	AZ 5X-1C-24DSE	AZ 5Y-1C-24DSE

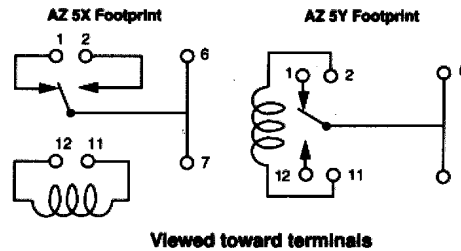
Standard Relays - Heavy Duty

Coil Specifications				ORDER NUMBER	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	AZ 5X Footprint	AZ 5Y Footprint
5	6.8	56	3.5	AZ 5X-1CH-5DE	AZ 5Y-1CH-5DE
6	8.1	80	4.2	AZ 5X-1CH-6DE	AZ 5Y-1CH-6DE
12	16.2	320	8.4	AZ 5X-1CH-12DE	AZ 5Y-1CH-12DE
24	32.4	1,280	16.8	AZ 5X-1CH-24DE	AZ 5Y-1CH-24DE

Mechanical Dimensions



WIRING DIAGRAM



Dimensions are in inches with metric equivalents in parentheses.

0.010" tolerances.

Terminal Dimensions

Terminal Number	Dimensions [Tolerance is 0.005 (0.13)]
1, 2, 11, 12	0.025 (0.63) x 0.015 (0.38)
6, 7	0.025 (0.63) x 0.011 (0.18)

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RELAYS