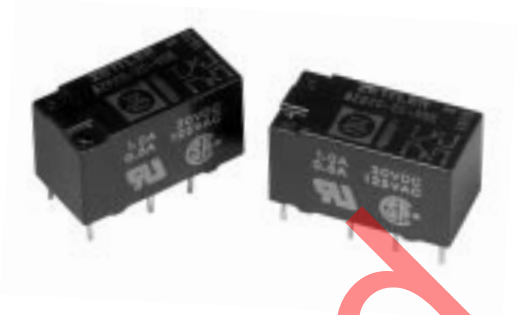
AZ820

SUBMINIATURE DIP RELAY

FEATURES

- Low profile for compact board spacing
- DC coils to 48 VDC
- Life expectancy to 10 million operations
- Standard PC 0.1" grid terminal spacing
- Fits standard 16 pin IC socket
- Epoxy sealed for automatic wave soldering and cleaning
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- UL file E43203, CSA file LR36664



CONTACTS

Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 30 W or 60 VA Max. switched current: 2 A Max. switched voltage: 150 VDC or 300 VAC **UL Rating:** 1 A at 30 VDC 0.5 A at 125 VAC
Material	Silver palladium, gold clad
Resistance	< 50 milliohms initially

COIL

Power	
At Pickup Voltage (typical)	250 mW
Max. Continuous Dissipation	1.1 W at 20°C (68°F) .9 W at 40°C (104°F)
Temperature Rise	45°C (81°F) at nominal coil voltage
Temperature	Max. 120°C (248°F)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than “Must Operate” value.
3. Relay adjustment may be affected if undue pressure is exerted on relay case.
4. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^7 5 x 10^5 at 1 A 30 VDC (see table for additional figures)
Operate Time (typical)	5 ms at nominal coil voltage
Release Time (typical)	2 ms at nominal coil voltage (with no coil suppression)
Capacitance	Contact to contact: 1.5 pF Contact set to contact set: 1.5 pF Contact to coil: 2.6 pF
Bounce (typical)	At 10 mA contact current 2 ms at operate N.O. side 3 ms at operate N.C. side
Dielectric Strength (at sea level for 1 min.)	1000 Vrms N.C. contact to coil, energized 1500 Vrms all other points 1000 Vrms across contacts Meets FCC Part 68.302 lightning surge Meets FCC Part 68.304 1000 V dielectric
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -55°C (-67°F) to 75°C (167°F) -55°C (-67°F) to 120°C (248°F)
Vibration	0.062" DA at 10–55 Hz
Shock	20 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	5 grams

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RELAY ORDERING DATA

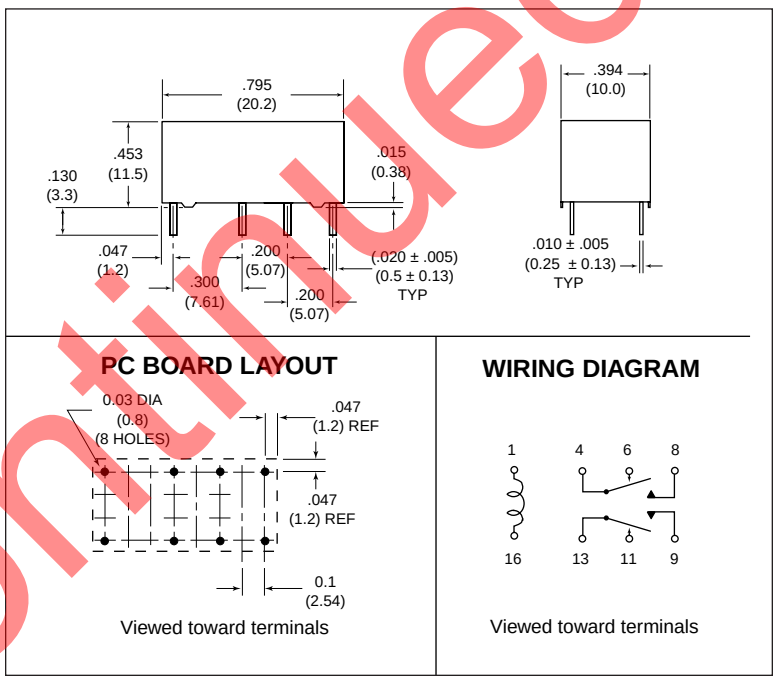
COIL SPECIFICATIONS				ORDER NUMBER
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance ± 10%	Must Operate VDC	
5	7.5	45	3.5	AZ820–2C–5DE
6	9.0	66	4.2	AZ820–2C–6DE
12	18.0	280	8.4	AZ820–2C–12DE
24	36.0	1,070	16.8	AZ820–2C–24DE
48	72.0	4,000	34.6	AZ820–2C–48DE

TYPICAL CONTACT LIFE EXPECTANCY

VOLTAGE	CURRENT	NUMBER OF OPERATIONS	
		RESISTIVE LOAD	INDUCTIVE LOAD
50 mV	1 mA	$1x\ 10^7$	1×10^7
30 VDC	1 A	5×10^5	15×10^4
30 VDC	0.7 A	1×10^6	3×10^5
30 VDC	0.3 A	3×10^6	1×10^6
60 VDC	0.5 A	5×10^5	—
60 VDC	0.3 A	1×10^6	—
60 VDC	0.2 A	3×10^6	—
30 VAC	2 A	5×10^5	15×10^4
30 VAC	1.3 A	1×10^6	3×10^5
30 VAC	0.7 A	3×10^6	1×10^6
60 VAC	1 A	5×10^5	15×10^4
60 VAC	0.7 A	1×10^6	3×10^5
60 VAC	0.3 A	3×10^6	1×10^6
125 VAC	0.5 A	5×10^5	15×10^4
125 VAC	0.3 A	1×10^6	3×10^5
125 VAC	0.2 A	3×10^6	1×10^6

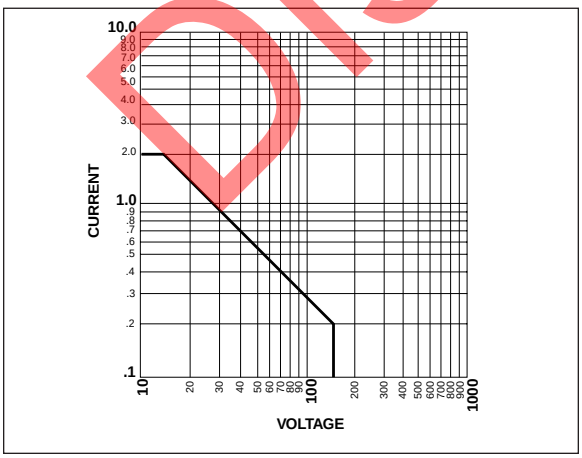
NOTES: 1. Relays operated at nominal coil voltage.
2. Inductive load tests are at 0.7 power factor.
3. Table represents typical life figures and are not guaranteed minimums.

MECHANICAL DATA

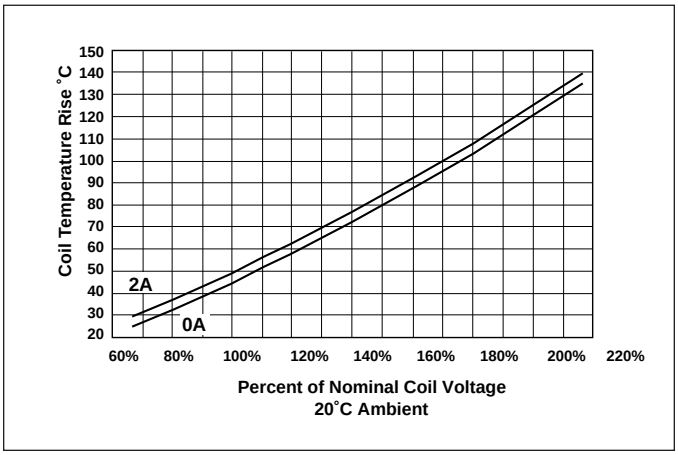


Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

Maximum Switching Capacity



Coil Temperature Rise



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