AZ9751/9761

20 AMP MINIATURE AUTOMOTIVE RELAY

FEATURES

- Up to 20 Amp switching capability in a compact size
- Open, covered or sealed
- Coils to 24 VDC
- Small footprint
- Cost effective
- Vibration and shock resistant
- ISO/TS 16949, ISO9001, ISO14000
- Tested in accordance with IEC

AZ9751

AZ9761

CONTACTS

Arrangement	SPSTNO (1 Form A) SPST NO DM (1 Form U) SPDT (B-M) (1 Form C) SPDT NC-NO (1 Form W)
Ratings	Max. switched power: 280 W, 1200 VA Form W: 2 x 280 W, 2 x 1200 VA Max. switched voltage: 75 VDC, 380 VAC Max. switched current: 20 A 1 Form A: 10 A at 120 VAC / 28 VDC, 20 A at 14 VDC 1 Form C: 10 A at 120 VAC / 28 VDC, 20 A at 14 VDC 1 Form U: 2 x 10 A at 120VAC / 28 VDC 2 x 20 A at 14 VDC 1 Form W: 2 x 10 A at 120 VAC / 28 VDC 2 x 20 A at 14 VDC
Material	Silver tin oxide
Resistance	< 50 milliohms at 1A, 5 VDC

COIL

Power	
At Pickup Voltage (typical)	563 mW (6 and 24 VDC Coil) 559 mW (12 VDC Coil)
Max. Continuous Dissipation	1.0 W 20°C (68°F) ambient - AZ9751 1.0 W 20°C (68°F) ambient - AZ9761
Temperature Rise	50°C (90°F) nominal coil VDC
Max. Temperature	155°C (311°F)

NOTES

1. All values at 20°C (68°F).
2. Maximum make current refers to in-rush current of lamp load.
3. Electrical life obtained at resistive or inductive load of 10A, 15 VDC for A,C, U contacts. 7A, 15 VDC for W contacts with suitable arc-suppression circuit attached with operating frequency of 1 ops/sec.
4. Relay may pull in with less than “Must Operate” value.
5. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^7 operations 1 x 10^5 at 12 A 14 VDC Res.
Operate Time (typical)	≤ 10 ms at nominal coil voltage
Release Time (typical)	≤ 5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength **(at sea level for 1 min.)**	1500 Vrms coil to contact 750 Vrms between open contacts
Insulation Resistance	100 megohms min at 500 VDC
Dropout	10% of nominal coil voltage
Relative Humidity	85 % at 40°C
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 105°C (221°F) -40°C (-40°F) to 105°C (221°F)
Vibration	0.05" DA at 10–40Hz
Shock	10 g, 11 ms, functional
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	235°C (455°F) ± 2°C (35.6°F)
Max. Solder Time	3 ± 0.5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	AZ9751 = 9g, AZ9761 = 12g, approx.

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RELAY ORDERING DATA — AZ 9751 - Open Style

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER*		
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Form A [SPST NO]	Form C [SPDT]	Form U [SPST NO DM]
6	4.50	7.8	36	AZ9751–1A–6DT	AZ9751–1C–6DT	AZ9751–1U–6DT
12	9.00	15.6	145	AZ9751–1A–12DT	AZ9751–1C–12DT	AZ9751–1U–12DT
24	18.00	31.2	576	AZ9751–1A–24DT	AZ9751–1C–24DT	AZ9751–1U–24DT

* Use “W” in place of “A” for Form W relays.

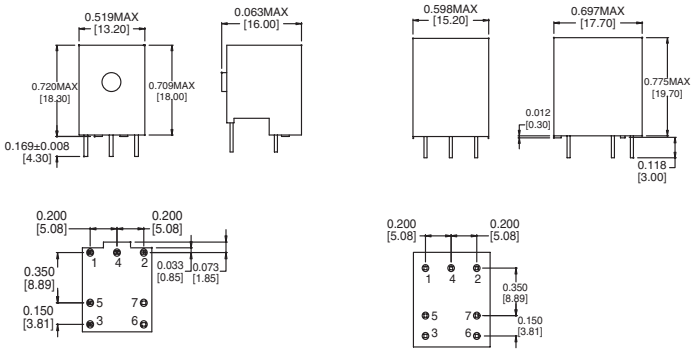
RELAY ORDERING DATA — AZ 9761 - With Dust Cover

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER*		
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ±10%	Form A [SPST NO]	Form C [SPDT]	Form U [SPST NO DM]
6	4.50	7.8	36	AZ9761–1A–6DT	AZ9761–1C–6DT	AZ9761–1U–6DT
12	9.00	15.6	145	AZ9761–1A–12DT	AZ9761–1C–12DT	AZ9761–1U–12DT
24	18.00	31.2	576	AZ9761–1A–24DT	AZ9761–1C–24DT	AZ9761–1U–24DT

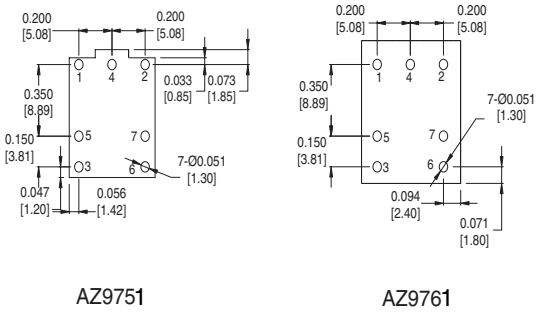
*Change suffix “T” to “ET” for epoxy sealed version. Use “W” in place of “A” for Form W relays.

MECHANICAL DATA

AZ9751 / 9761 Outline Dimensions



Suggested PCB Layout



Wiring Diagrams (Bottom View)

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± 0.010”