ULTRA-SENSITIVE SUBMINIATURE RELAY

FEATURES

- Extremely small footprint utilizing only 1 cm² of PCB area
- Thin vertical profile, only 5 mm wide
- > 3.5 mm clearance and creepage
- Proof tracking index (PTI/CTI) 250
- Slim SIP package
- Vertical and horizontal mounting version available
- 1 Form A contact with up to 5 Amp switching capability
- High sensitivity, 58 mW pickup
- 3000 Vrms dielectric strength contact to coil
- Epoxy sealed
- UL, CUR file E43203
- TÜV certificate R50243813

CONTACTS

Arrangement	SPST (1 Form A) Single button contact or bifurcated contact		
Ratings	Resistive load:		
	Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150 VDC* or 250 VAC		
	* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.		
Rated Load UL, CUR	5 A at 250 VAC, resistive, 50k cycles [1][2][3] 3 A at 250 VAC, resistive, 100k cycles [1][2][3] 5 A at 30 VDC, resistive, 50k cycles [1][2][3] 3 A at 30 VDC, resistive, 100k cycles [1][2][3] B300 pilot duty [3] R300 pilot duty [3]		
TUV	5 A at 250 VAC, resistive, 50k cycles [3] 5 A at 250 VAC, resistive, 100k cycles [1][2] 5 A at 30 VDC, resistive, 50k cycles [3] 5 A at 30 VDC, resistive, 100k cycles [1][2]		
Material	Silver nickel (single button contact) [1] silver nickel gold plated (bifurcated contact) [2] silver tin oxide (single button contact) [3] gold plating available		
Resistance	< 50 milliohms initially (at 6 V, 1 A, voltage drop method)		

COIL

Power At Pickup Voltage (typical)	58 mW (5 - 18 VDC) 88 mW (24 VDC)	
Max. Continuous Dissipation	1.3 W at 20°C (68°F) ambient	
Temperature Rise	12°C (22°F) at nominal coil voltage (5-18 V) 17°C (31°F) at nominal coil voltage (24 V)	
Temperature	Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F	



Life Expectancy Mechanical Electrical	Minimum operations 2 x 10 ⁷ operations 1 x 10 ⁵ at 5 A, 30 VDC or 250 VAC		
Operate Time (typical)	6 ms at nominal coil voltage		
Release Time (typical)	3 ms at nominal coil voltage (with no coil suppression)		
Dielectric Strength (at sea level for 1 min.)	3000 Vrms coil to contact 1000 Vrms between open contacts		
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH		
Dropout	Greater than 10% of nominal coil voltage		
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)		
Vibration	0.062" (1.5 mm) DA at 10–55 Hz		
Shock	10 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	3 grams		
Packing unit in pcs	100 per plastic tube / 1000 per carton box		

NOTES

1. All values at 20°C (68°F).

GENERAL DATA

2. Relay may pull in with less than "Must Operate" value.

3. Specifications subject to change without notice.

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This product specification to be used only together with the application notes which can be downloaded from http://www.ZETTLERelectronics.com/pdfs/relais/ApplicationNotes.pdf

AZ921.

RELAY ORDERING DATA

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm ± 10%	ORDER NUMBER*
5	3.5	16.5	208	AZ921–1A–5DE
6	4.2	19.9	300	AZ921–1A–6DE
9	6.3	29.8	675	AZ921–1A–9DE
12	8.4	39.8	1,200	AZ921–1A–12DE
18	12.6	59.6	2,700	AZ921–1A–18DE
24	16.8	65.0	3,200	AZ921–1A–24DE

* "1A" denote silver nickel contacts.

Add suffix "B" to "1A" for bifurcated gold plated silver nickel contacts.

Add suffix "E" to "1A" for silver tin oxide contacts.

Add suffix "A" for gold plated contacts.

Add suffix "K" for .3 inch terminal spacing.

Add suffix "F" at the end of order number for Class F insulation.

Horizontal mounting version upon request.

MECHANICAL DATA



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

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MECHANICAL DATA



Dimensions in mm. Tolerance: ± 0,25 mm

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