# AZ8521

# SUBMINIATURE SIGNAL RELAY

# FEATURES

- Conforms to IEC60950/EN41003 spacing and high breakdown voltage
- Monostable and bistable (latching) coil versions available
- High dielectric and surge voltage:
  2.5 KV surge (per FCC Part 68) and meets Telcordia
- Low power consumption: 64 mW pickup
- Stable contact resistance for low level signal switching
- UL , CUR E43203

# CONTACTS

Arrangement	DPDT (2 Form C)				
Ratings	Resistive load:				
	Max. switched power: 60 W or 62.5 VA Max. switched current: 2.0 A Max. switched voltage: 220 VDC or 250 VAC				
Rated Load UL/CSA	0.5 A at 125 VAC 2.0 A at 30 VDC 0.5 A at 125 VDC				
Material	Silver alloy; gold clad				
Resistance	< 70 milliohms initially at 6 V, 1 A				

# **COIL (Polarized)**

Power	56 mW - Latching coils		
At Pickup Voltage (typical)	79 mW (3–12 VDČ) - Standard coils 130 mW (24 VDC) - Standard coils		
Max. Continuous Dissipation	1.0 W at 20°C (68°F) 0.78 W at 40°C (104°F)		
Temperature Rise	At nominal coil voltage 18°C (32°F) (3–12 VDC) 25°C (45°F) (24 VDC)		
Temperature	Max. 115°C (239°F)		



## **GENERAL DATA**

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 <sup>s</sup> at 3Hz 1 x 10 <sup>5</sup> at 0.5 A, 125 VAC, Res. 1 x 10 <sup>5</sup> at 2.0 A, 30 VDC, Res.			
Operate Time (typical)	3 ms at nominal coil voltage			
Release Time (typical)	3 ms at nominal coil voltage (with no coil suppression)			
Bounce (typical)	At 10 mA contact current 1 ms at operate or release			
Capacitance	< 1 pF at 10 KHz—open contacts < 1 pF at 10 KHz—adjacent contact sets			
Dielectric Strength (at sea level)	See table			
Dropout	Greater than 10% of nominal coil voltage			
Insulation Resistance	10º ohms min. at 25°C, 500 VDC, 50% RH			
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 115°C (239°F)			
Vibration	Functional 10–55 Hz 3.3mm DA Destructive 10-55Hz 5.0mm DA			
Shock	Functional, 735 m/s² Destructive, 980 m/s²			
Max. Solder Temp. Temp./Time	350°C (662°F) for 3 seconds 260°C (500°F) for 10 seconds			
Max. Solvent Temp.	80°C (176°F)			
Max. Immersion Time	30 seconds			
Weight	0.8 grams			
Enclosure	P.B.T. polyester			
Terminals	Tinned copper alloy, P.C.			

## NOTES

- 1. All values at 20°C (68°F).
- 2. Relay may pull in with less than "Must Operate" value.
- 3. Relay has fixed coil polarity.
- 4. Specifications subject to change without notice.

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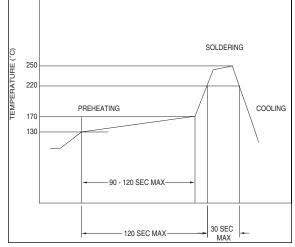
# AZ8521

### **RELAY ORDERING DATA**

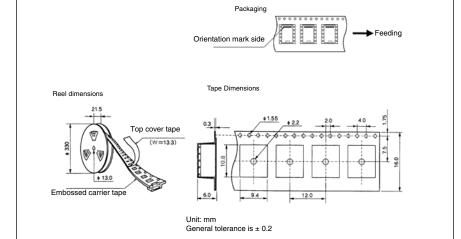
NON-LATCHING VERSION - STANDARD							
Nominal Coil	Max. Continuous	Coil Resistance	Must Operate				
VDC	VDC	± 10%	VDC	THT	SMT*	SMT Short Leg*	
1.5	2.25	16.1	1.13	AZ8521–1.5	AZ8521S-1.5	AZ8521S1-1.5	
3	4.5	64.3	2.25	AZ8521–3	AZ8521S-3	AZ8521S1–3	
4.5	6.75	145	3.38	AZ8521-4.5	AZ8521S-4.5	AZ8521S1-4.5	
5	7.5	178	3.75	AZ8521-5	AZ8521S-5	AZ8521S1-5	
6	9	257	4.5	AZ8521–6	AZ8521S-6	AZ8521S1-6	
9	13.5	579	6.75	AZ8521–9	AZ8521S-9	AZ8521S1-9	
12	18	1028	9.00	AZ8521–12	AZ8521S-12	AZ8521S1-12	
24	36	2504	18.00	AZ8521–24	AZ8521S-24	AZ8521S1–24	
LATCHING VERSIO	ON	-	-				
Nominal Coil	Nominal Coil Max. Continuous Coil Resistance Must Operate			ORDER NUMBER			
VDC	VDC	± 10%	VDC	THT	SMT*	SMT Short Leg*	
1.5	2.25	22.5	1.13	AZ8521P-1.5	AZ8521PS-1.5	AZ8521PS1-1.5	
3	4.5	90	2.25	AZ8521P-3	AZ8521PS-3	AZ8521PS1-3	
4.5	6.75	203	3.38	AZ8521P-4.5	AZ8521PS-4.5	AZ8521PS1-4.5	
5	10	250	3.75	AZ8521P-5	AZ8521PS-5	AZ8521PS1-5	
6	9	360	4.50	AZ8521P-6	AZ8521PS-6	AZ8521PS1-6	
9	13.5	810	6.75	AZ8521P-9	AZ8521PS-9	AZ8521PS1-9	
12	18	1440	9.00	AZ8521P-12	AZ8521PS-12	AZ8521PS1-12	
24	36	4800	18.00	AZ8521P-24	AZ8521PS-24	AZ8521PS1-24	

For SMT short leg add "1" after S. \*Tape and reel available (900 pcs/reel minimum) add suffix "TR"

#### **Temperature Profile**



# **Packaging Specifications**





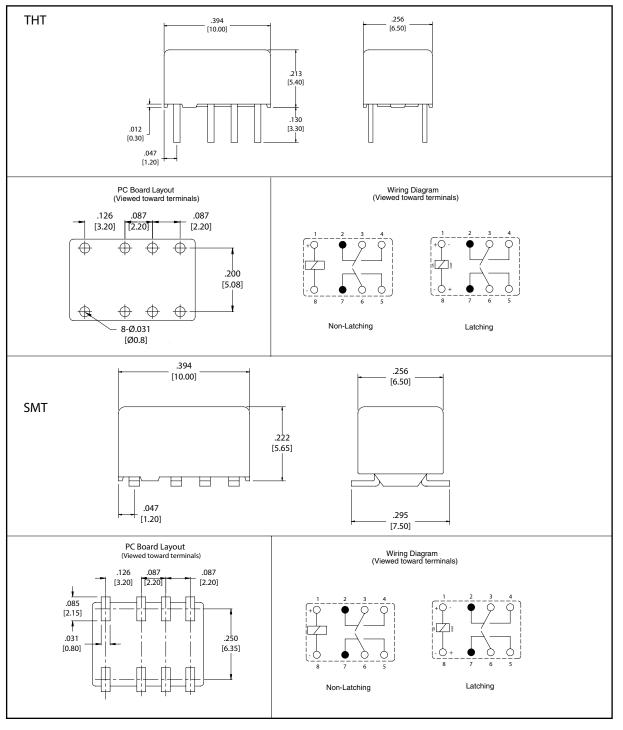
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INITIAL DIELECTRIC STR	m)	SURGE		
	VRMS, 1 min.	Peak (V)	Rise Time (µS)	Decay Time* (9µS) (1/2 peak)
Between open contacts	1,000	1,500	10	160
Between contact sets	1,800	-	-	-
Between coil and contacts	1,600	2,500	2	10

\* Decay time measured from beginning of surge.

# **Mechanical Data**



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