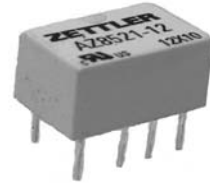


# AZ8521

## SUBMINIATURE SIGNAL RELAY

### FEATURES

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



### CONTACTS

Arrangement	DPDT (2 Form C)
Ratings	Resistive load: Max. switched power: 60W or 62.5VA Max. switched current: 2.0A Max. switched voltage: 220VDC or 250VAC
Rated Load UL/CUL	1A at 30VDC at 85°C 2A at 30VDC at 40°C 0.5A at 125VDC at 40°C
Material	Silver alloy; gold clad
Resistance	< 100 milliohms max (at 10mA, 30mV)

### COIL (Polarized)

Power At Pickup Voltage (typical)	56mW - Latching coils 79mW (3–12 VDC) - Standard coils 130mW (24 VDC) - Standard coils
Max. Continuous Dissipation	1.0W at 20°C (68°F) 0.78W 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>8</sup> at 3Hz 1 x 10 <sup>5</sup> at 0.5A, 125VAC, Res. 1 x 10 <sup>5</sup> at 2A, 30VDC, Res.
Operate Time (typical)	3ms at nominal coil voltage
Release Time (typical)	3ms at nominal coil voltage (with no coil suppression)
Bounce (typical)	At 10mA contact current 1ms at operate or release
Capacitance	< 1pF at 10KHz—open contacts < 1pF at 10KHz—adjacent contact sets
Dielectric Strength (at sea level)	See table
Dropout	Greater than 10% of nominal coil voltage
Insulation Resistance	10 <sup>9</sup> 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/s <sup>2</sup> Destructive, 980 m/s <sup>2</sup>
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 (approx.)	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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9/07/22

# AZ8521

## RELAY ORDERING DATA

### NON-LATCHING VERSION - STANDARD

Nominal Coil VDC	Max. Continuous VDC	Must Operate VDC	Coil Resistance $\pm 10\%$	ORDER NUMBER		
				THT	SMT*	SMT Short Leg*
1.5	2.2	1.13	16.1	AZ8521-1.5	AZ8521S-1.5	AZ8521S1-1.5
2.4	3.6	1.8	41	AZ8521-2.4	AZ8521S-2.4	AZ8521S1-2.4
3	4.5	2.25	64.3	AZ8521-3	AZ8521S-3	AZ8521S1-3
4.5	6.7	3.38	145	AZ8521-4.5	AZ8521S-4.5	AZ8521S1-4.5
5	7.5	3.75	178	AZ8521-5	AZ8521S-5	AZ8521S1-5
6	9	4.5	257	AZ8521-6	AZ8521S-6	AZ8521S1-6
9	13.5	6.75	579	AZ8521-9	AZ8521S-9	AZ8521S1-9
12	18	9	1028	AZ8521-12	AZ8521S-12	AZ8521S1-12
24	36	18	2880	AZ8521-24	AZ8521S-24	AZ8521S1-24

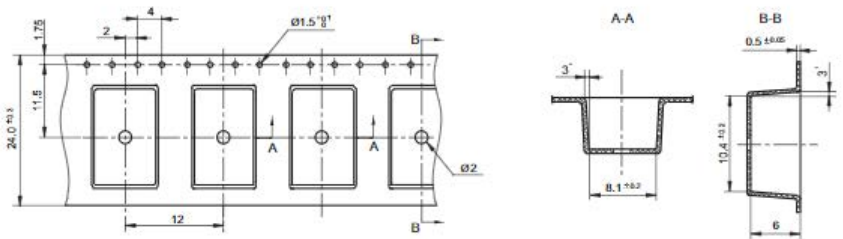
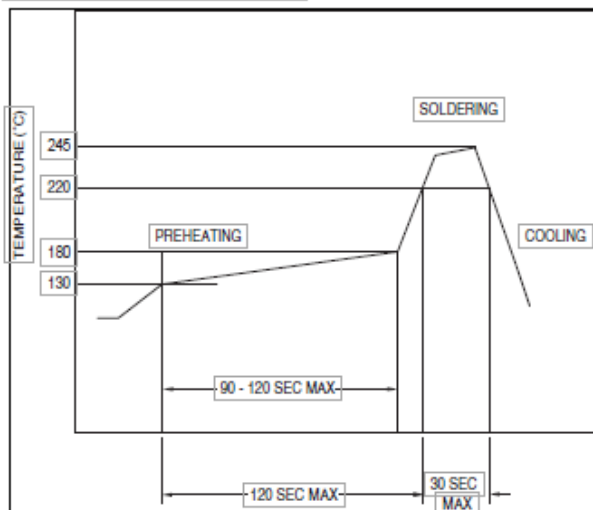
### LATCHING VERSION

Nominal Coil VDC	Max. Continuous VDC	Must Operate VDC	Coil Resistance $\pm 10\%$	ORDER NUMBER		
				THT	SMT*	SMT Short Leg*
1.5	3	1.13	22.5	AZ8521P-1.5	AZ8521PS-1.5	AZ8521PS1-1.5
2.4	4.8	1.8	58	AZ8521P-2.4	AZ8521PS-2.4	AZ8521PS1-2.4
3	6	2.25	90	AZ8521P-3	AZ8521PS-3	AZ8521PS1-3
4.5	9	3.38	203	AZ8521P-4.5	AZ8521PS-4.5	AZ8521PS1-4.5
5	10	3.75	250	AZ8521P-5	AZ8521PS-5	AZ8521PS1-5
6	12	4.50	360	AZ8521P-6	AZ8521PS-6	AZ8521PS1-6
9	18	6.75	810	AZ8521P-9	AZ8521PS-9	AZ8521PS1-9
12	24	9	1440	AZ8521P-12	AZ8521PS-12	AZ8521PS1-12
24	36	18	2880	AZ8521P-24	AZ8521PS-24	AZ8521PS1-24

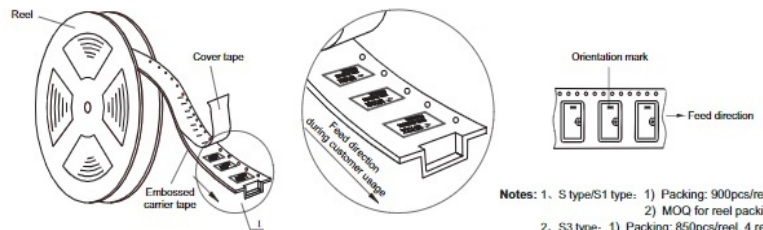
For SMT short leg add "1" after S. \*Tape and reel available (900 pcs/reel minimum) add suffix "TR"

## Tape Dimensions

### Temperature Profile



## Packaging Specifications



- Notes: 1. S type/S1 type: 1) Packing: 900pcs/reel, 4 reels/carton.  
 2) MOQ for reel packing is 900pcs  
 2. S3 type: 1) Packing: 850pcs/reel, 4 reels/carton.  
 2) MOQ for reel packing is 850pcs..

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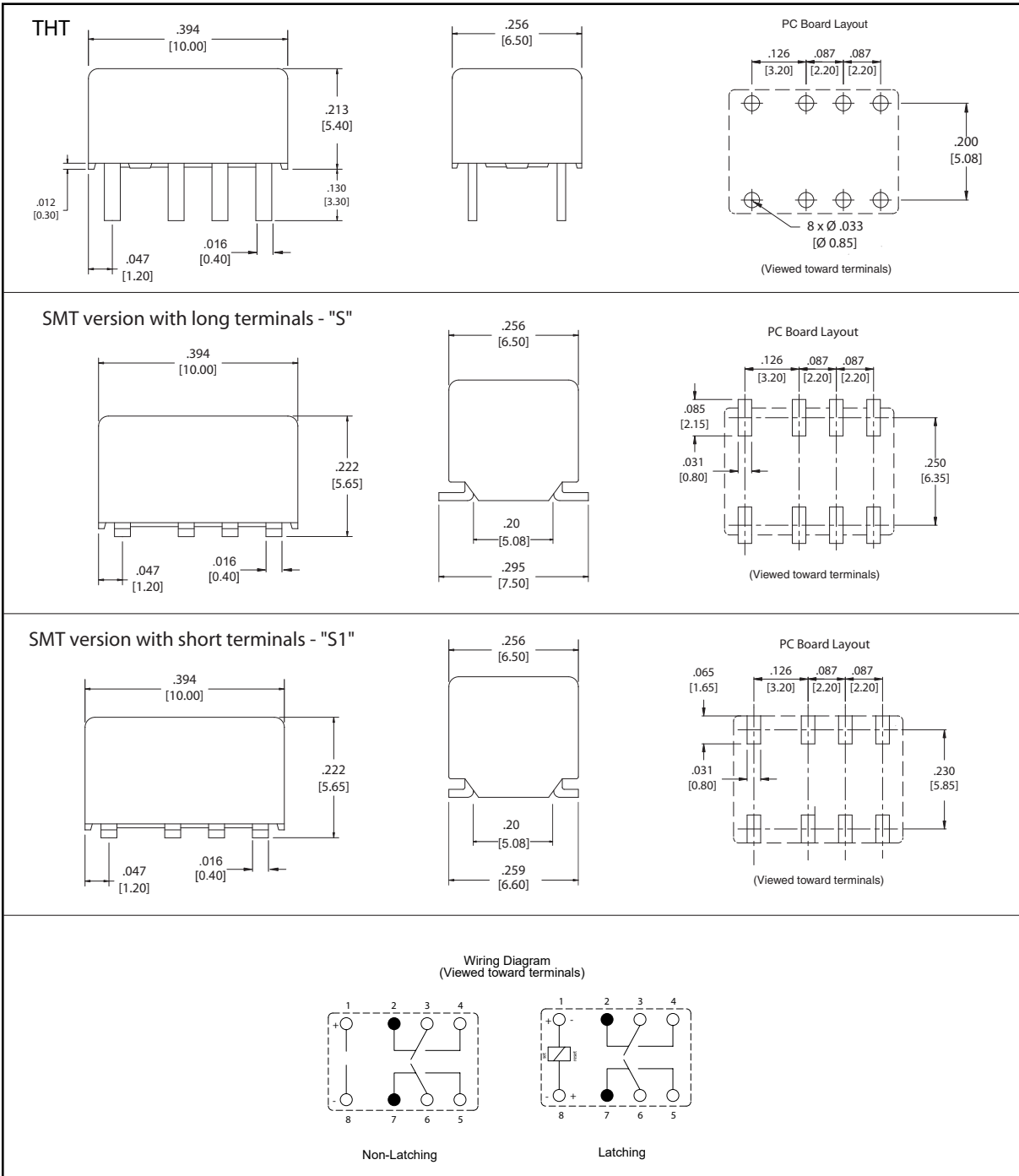
9/07/22

# AZ8521

	INITIAL DIELECTRIC STRENGTH (minimum)		SURGE	
	VRMS, 1 min.	Peak (V)	Rise Time ( $\mu$ S)	Decay Time* ( $9\mu$ S) (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



Dimensions in inches with millimeters in brackets below. Tolerance:  $\pm .010$ "

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.