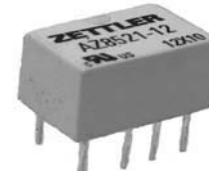


# AZ8521

## DPDT SUBMINIATURE SIGNAL RELAY

### FEATURES

- SMT and THT mounting available
- High dielectric and surge voltage:
  - 2.5 kV surge (per Bellcore TA-NWT-001089)
  - 1.5 kV surge (per FCC Part 68)
  - 1,000 Vrms, open contacts
  - 1,600 Vrms, coil to contacts
- Conforms to IEC60950 / EN41003 spacing and high break down voltage
- Monostable and bistable (latching) versions available
- Minimum switching load 10 mV, 10  $\mu$ A
- Low power consumption: 79 mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed
- UL, CUR file E43203



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C)
<b>Ratings</b>	Resistive load:  Max. switched power: 60 W or 62.5 VA Max. switched current: 2 A Max. switched voltage: 220 VDC* or 250 VAC  * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	0.5 A at 125 VAC, resistive, 40°C, 100k cycles 2 A at 30 VDC, resistive, 40°C, 100k cycles 1 A at 30 VDC, resistive, 85°C, 100k cycles
<b>Material</b>	Silver nickel gold plated
<b>Resistance</b>	< 70 milliohms initially

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	Monostable: 79 mW (1.5 - 12 VDC) Monostable: 113 mW (24 VDC)  Bistable latching: 57 mW (1.5 - 12 VDC) Bistable latching: 113 mW (24 VDC)
<b>Max. Continuous Dissipation</b>	570 mW at 20°C (68°F) ambient
<b>Temperature Rise (at nominal voltage)</b>	40°C (72°F) (3 - 12 VDC) 50°C (90°F) (24 VDC)
<b>Temperature</b>	Max. 115°C (239°F)

### GENERAL DATA

<b>Life Expectancy</b>	Minimum operations 1 x 10 <sup>8</sup>
<b>Mechanical</b>	
<b>Electrical</b>	1 x 10 <sup>5</sup> at 0.5 A 125 VAC Res. 1 x 10 <sup>5</sup> at 2 A 30 VDC Res.
<b>Operate Time (max.)</b>	3 ms at nominal coil voltage
<b>Release Time (max.)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	1600 Vrms coil to contacts 1800 Vrms between contact sets 1000 Vrms between open contacts
<b>Surge Voltage</b>	
<b>Coil to contacts</b>	2500 V (at 2/10 $\mu$ s)
<b>Open contacts</b>	1500 V (at 10/160 $\mu$ s)
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC, 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
<b>Vibration</b>	3.3 mm DA at 10–55 Hz
<b>Shock</b>	75 g operating, 100 g damage
<b>Enclosure</b>	LCP
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	0.8 grams
<b>Packing unit in pcs</b>	50 per plastic tube / 4000 per carton box 900 per reel / 3600 per carton box

### 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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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>

2018-08-27

# AZ8521

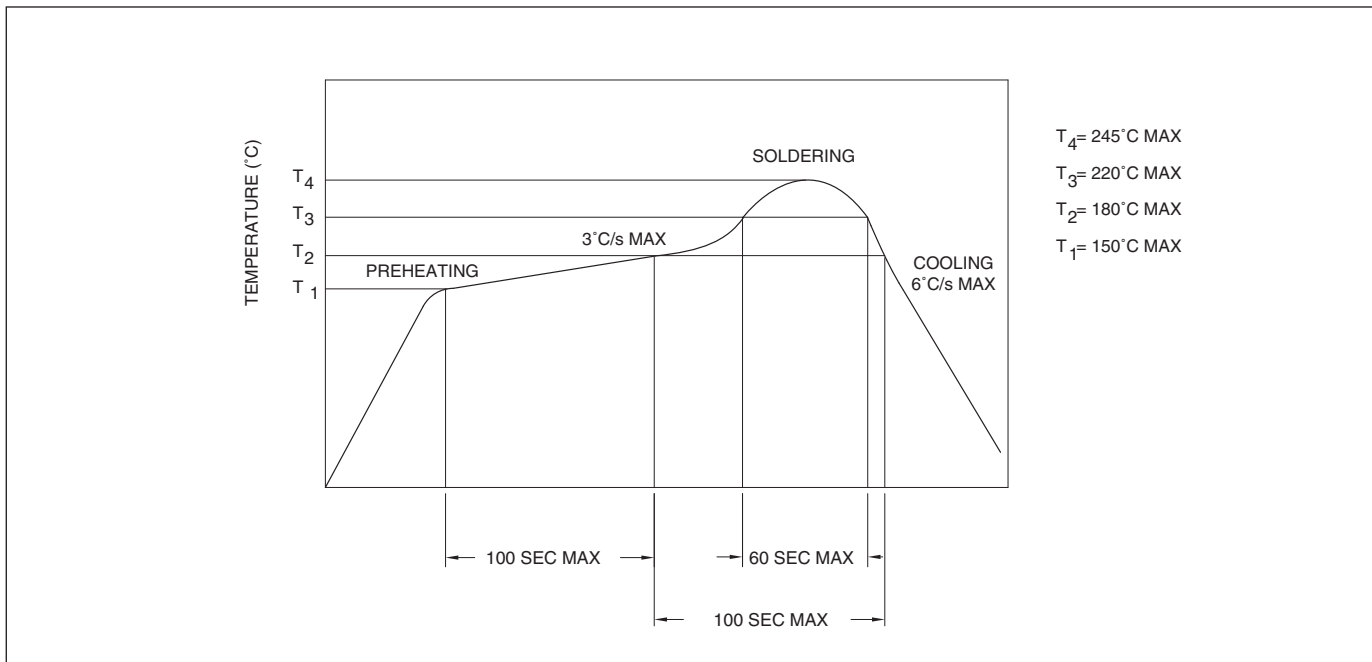
## RELAY ORDERING DATA

NON-LATCHING VERSION						
COIL SPECIFICATIONS				ORDER NUMBER		
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10$	THT	SMT	SMT Short Leg*
1.5	1.13	2.2	16	AZ8521-1.5	AZ8521S-1.5	AZ8521S1-1.5
3	2.25	4.5	64.3	AZ8521-3	AZ8521S-3	AZ8521S1-3
4.5	3.38	6.7	145	AZ8521-4.5	AZ8521S-4.5	AZ8521S1-4.5
5	3.75	7.5	178	AZ8521-5	AZ8521S-5	AZ8521S1-5
6	4.5	9.0	257	AZ8521-6	AZ8521S-6	AZ8521S1-6
9	6.75	13.5	579	AZ8521-9	AZ8521S-9	AZ8521S1-9
12	9.0	18.0	1,028	AZ8521-12	AZ8521S-12	AZ8521S1-12
24	18.0	36.0	2,880	AZ8521-24	AZ8521S-24	AZ8521S1-24

LATCHING VERSION						
COIL SPECIFICATIONS				ORDER NUMBER*		
Nominal Coil VDC	Set/Reset VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10$	THT	SMT	SMT Short Leg*
1.5	1.13	2.2	22.5	AZ8521P-1.5	AZ8521PS-1.5	AZ8521PS1-1.5
3	2.25	4.5	90	AZ8521P-3	AZ8521PS-3	AZ8521PS1-3
4.5	3.38	6.7	203	AZ8521P-4.5	AZ8521PS-4.5	AZ8521PS1-4.5
5	3.75	7.5	250	AZ8521P-5	AZ8521PS-5	AZ8521PS1-5
6	4.5	9.0	360	AZ8521P-6	AZ8521PS-6	AZ8521PS1-6
9	6.75	13.5	810	AZ8521P-9	AZ8521PS-9	AZ8521PS1-9
12	9.0	18.0	1,440	AZ8521P-12	AZ8521PS-12	AZ8521PS1-12
24	18.0	36.0	2,880	AZ8521P-24	AZ8521PS-24	AZ8521PS1-24

\* Add suffix "TR" at the end of order number for reel packing. (Only available for SMT)

## SOLDERING DATA



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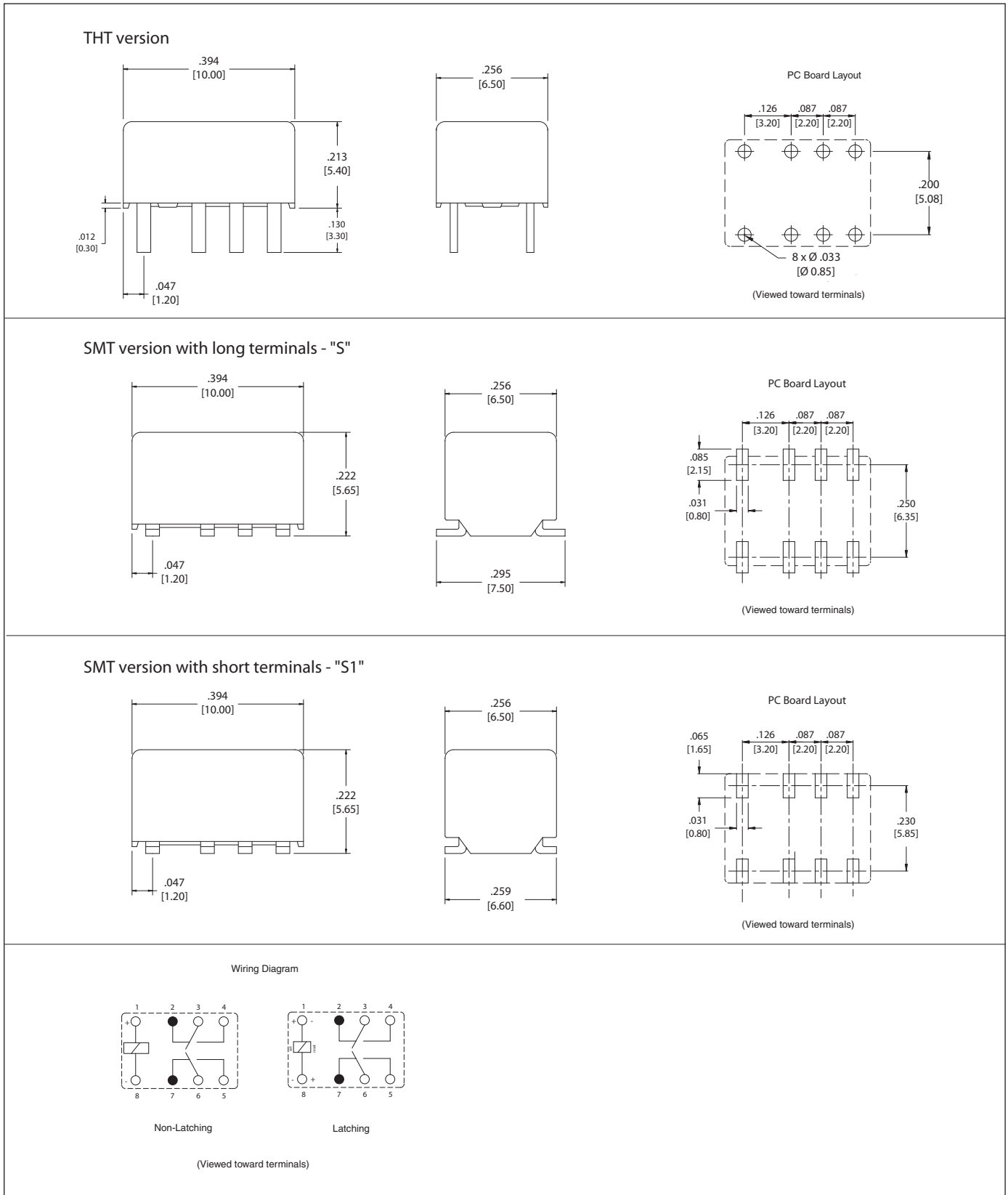
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2018-08-27

# AZ8521

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .016''$

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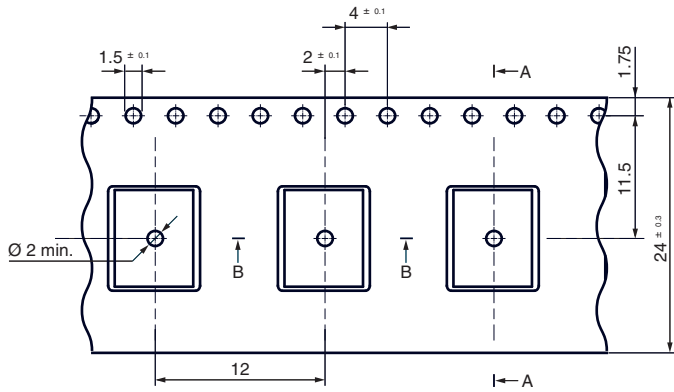
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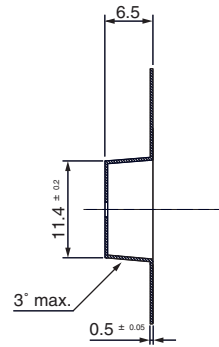
# AZ8521

## PACKAGING

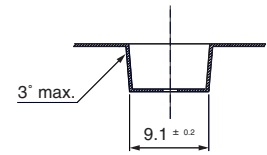
Tape and reel for SMT version with long terminals - "S"



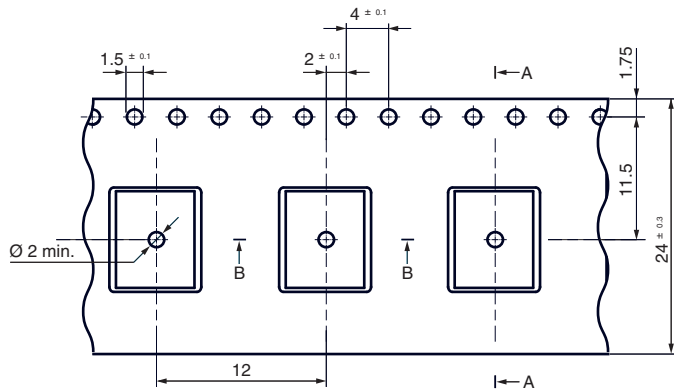
Section A-A



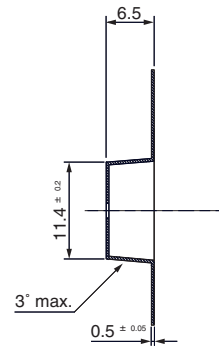
Section B-B



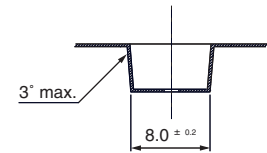
Tape and reel for SMT version with short terminals - "S1"



Section A-A



Section B-B



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