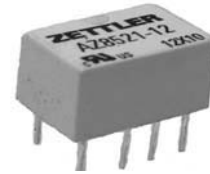


DPDT SUBMINIATURE SIGNAL RELAY

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 μ A
- Low power consumption: 79 mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed
- UL, CUR file E43203



CONTACTS

Arrangement	DPDT (2 Form C)
Ratings	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.
Rated Load UL, CUR	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
Material	Silver nickel gold plated
Resistance	< 70 milliohms initially

COIL

Power	
At Pickup Voltage (typical)	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)
Max. Continuous Dissipation	570 mW at 20°C (68°F) ambient
Temperature Rise (at nominal voltage)	40°C (72°F) (3 - 12 VDC) 50°C (90°F) (24 VDC)
Temperature	Max. 115°C (239°F)

GENERAL DATA

Life Expectancy	Minimum operations 1 x 10 ⁸
Mechanical	
Electrical	1 x 10 ⁵ at 0.5 A 125 VAC Res. 1 x 10 ⁵ at 2 A 30 VDC Res.
Operate Time (max.)	3 ms at nominal coil voltage
Release Time (max.)	3 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1600 Vrms coil to contacts 1800 Vrms between contact sets 1000 Vrms between open contacts
Surge Voltage Coil to contacts Open contacts	2500 V (at 2/10 μ s) 1500 V (at 10/160 μ s)
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	3.3 mm DA at 10–55 Hz
Shock	75 g operating, 100 g damage
Enclosure	LCP
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	0.8 grams
Packing unit in pcs	40 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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AZ8521

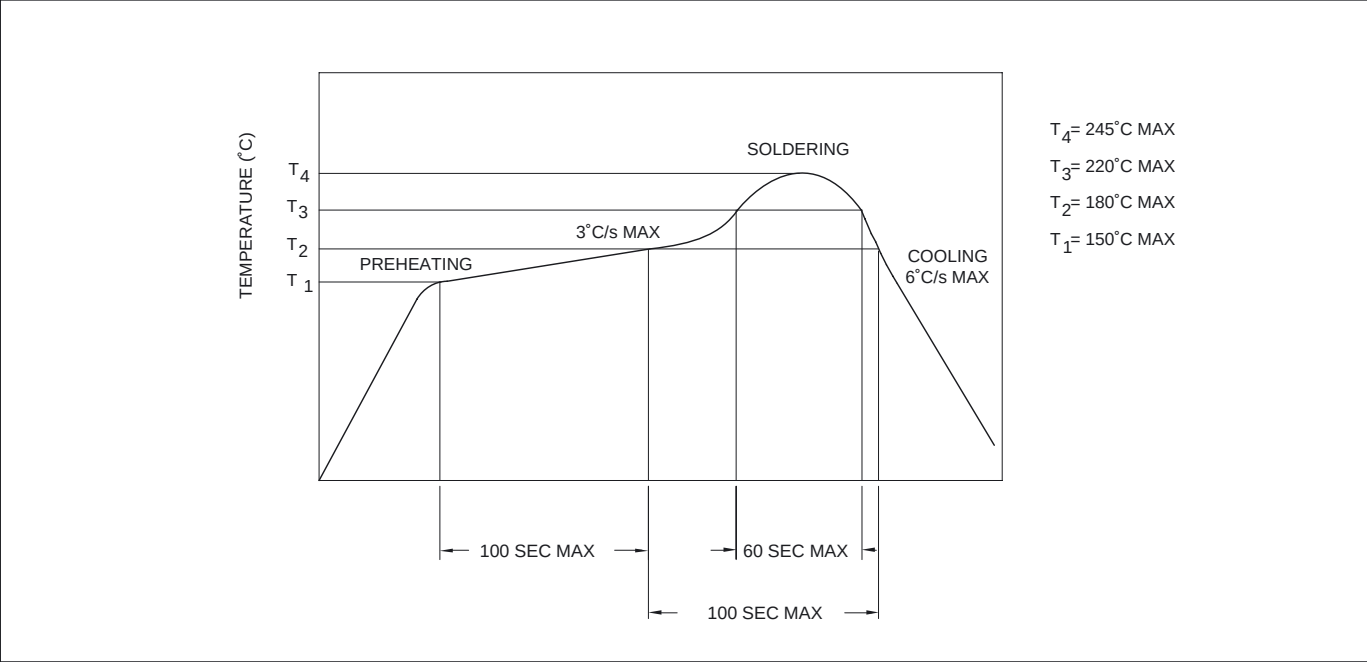
RELAY ORDERING DATA

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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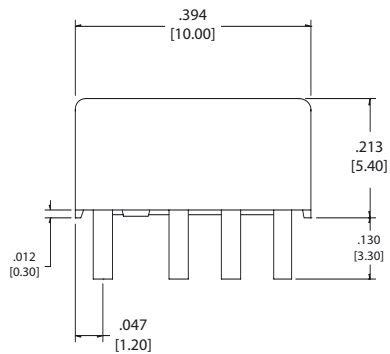
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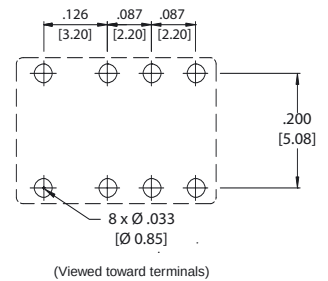
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MECHANICAL DATA

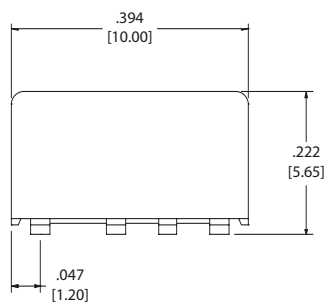
THT version



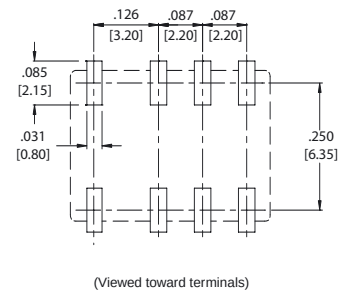
PC Board Layout



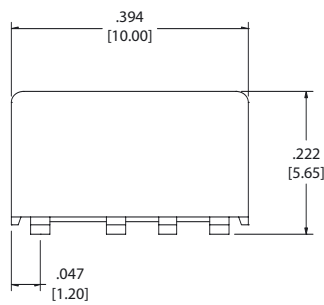
SMT version with long terminals - "S"



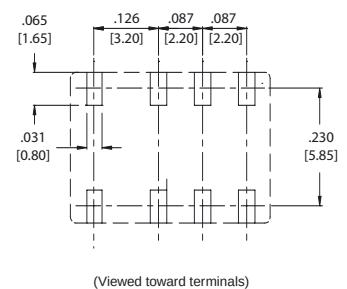
PC Board Layout



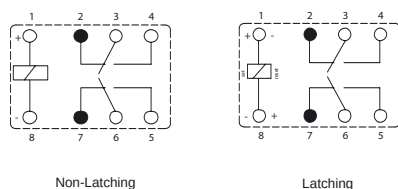
SMT version with short terminals - "S1"



PC Board Layout



Wiring Diagram



(Viewed toward terminals)

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

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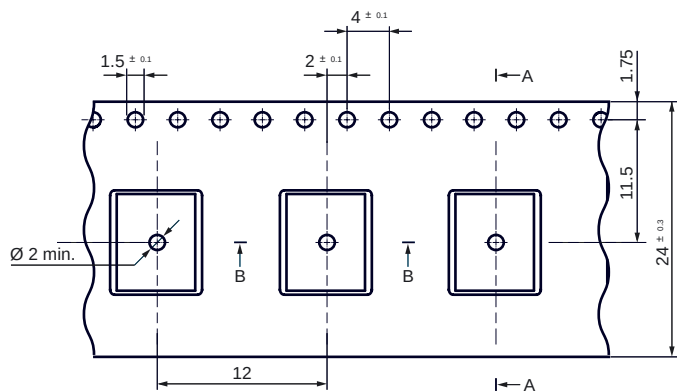
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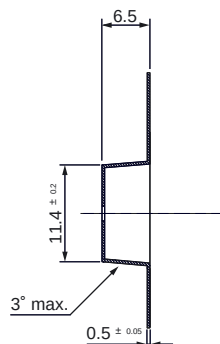
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PACKAGING

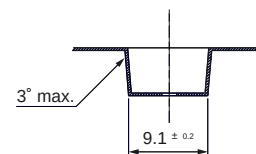
Tape and reel for SMT version with long terminals - "S"



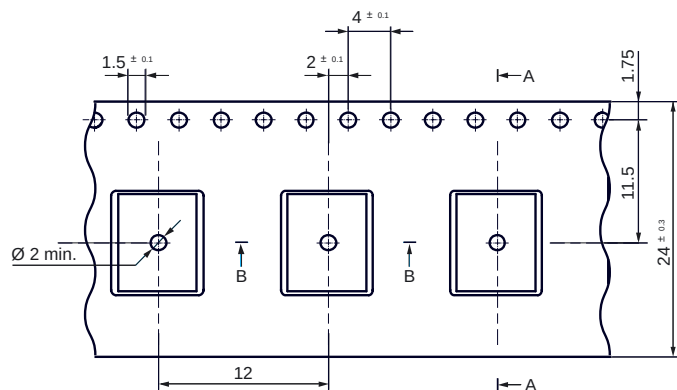
Section A-A



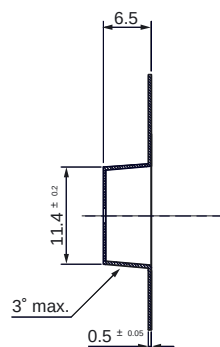
Section B-B



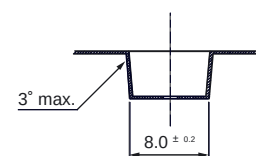
Tape and reel for SMT version with short terminals - "S1"



Section A-A



Section B-B



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