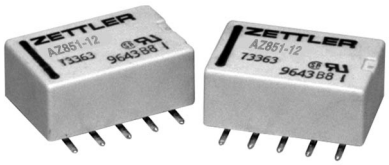
AZ851

MICROMINIATURE POLARIZED RELAY

FEATURES

- Microminiature size: Height: .244 inches (6.2 mm); Length: .559 inches (14.2 mm); Width: .366 inches (9.3 mm)
- High sensitivity, 79 mW pickup
- Meets FCC Part 68.302 1500 V lightning surge
- Surface mount type with “L” shaped terminals
- Monostable and bistable (latching) single coil and two coil versions available
- Epoxy sealed
- UL, CUR file E43203



CONTACTS

Arrangement	DPDT (2 Form C) Bifurcated crossbar contacts
Ratings	Resistive load: Max. switched power: 30 W or 62.5 VA Max. switched current: 1 A Max. switched voltage: 220 VDC* or 250 VAC Max. carry current: 2 A * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load **UL, CUR**	1 A at 30 VDC resistive 0.5 A at 125 VAC resistive
Material	Silver palladium, gold clad
Resistance	< 50 milliohms initially

COIL (Polarized)

Power	
At Pickup Voltage (typical)	Single side stable: 79–169 mW Bistable (latching) single coil: 56–84 mW Bistable (latching) two coil: 113–169 mW
Max. Continuous Dissipation	875 mW at 20°C (68°F) ambient
Temperature Rise	18°C (32°F) at nominal coil voltage
Temperature	Max. 105°C (221°F)

NOTES

1. All values at 20°C (68°F).
2. Relay has fixed coil polarity.
3. Relay may pull in with less than “Must Operate” value.
4. Relay adjustment may be affected if undue pressure is exerted on relay case.
5. For complete isolation between the relay’s magnetic fields, it is recommended that a .197" (5.0 mm) space be provided between adjacent relays.
6. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1 x 10^8 2 x 10^5 at 1 A, 30 VDC resistive 1 x 10^5 at 0.5 A, 125 VAC resistive
Operate Time (typical)	2 ms at nominal coil voltage
Release Time (typical)	1 ms at nominal coil voltage (with no coil suppression)
Set Time **(bistable versions)**	2 ms at nominal coil voltage (typical) Recommended coil pulse: 20 ms
Reset Time **(bistable versions)**	2 ms at nominal coil voltage (typical) Recommended coil pulse: 20 ms
Dropout	Greater than 10% of nominal coil voltage
Capacitance	Contact to contact: 0.4 pF Contact set to contact set: 0.2 pF Contact to coil: 0.9 pF
Dielectric Strength **(at sea level)**	1000 Vrms between contact sets 1000 Vrms across contacts 1000 Vrms contact to coil Meets FCC part 68.302 1500 V lightning surge
Insulation Resistance	1000 megohms 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 105°C (221°F)
Vibration	.130" (3.3 mm) DA at 10–55 Hz
Shock	50 g
Enclosure	LCP
Terminals	Tinned copper alloy, P.C.
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	1.5 grams
Packing unit in pcs **(TR Tape & Reel)**	25 per plastic tube / 1000 per carton box 500 per reel

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RELAY ORDERING DATA

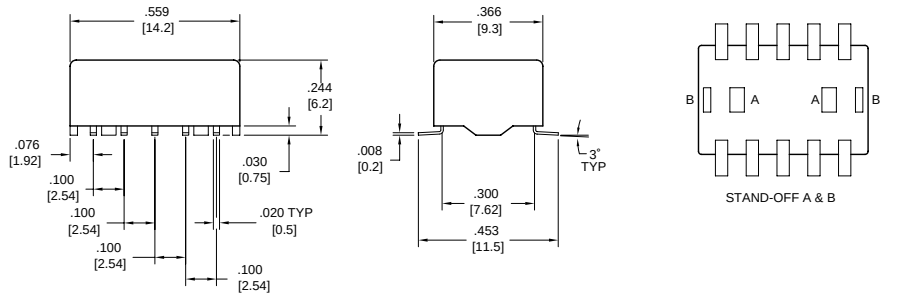
COIL SPECIFICATIONS				
Standard Coil: Monostable				**ORDER NUMBER**
Nominal Coil VDC	**Must Operate VDC**	**Max. Continuous VDC**	**Coil Resistance Ohm ± 10%**	
3	2.25	7.5	64.3	AZ851–3
5	3.75	12.5	178	AZ851–5
6	4.5	15.0	257	AZ851–6
9	6.75	22.5	579	AZ851–9
12	9.0	30.0	1,028	AZ851–12
24	18.0	48.0	2,880	AZ851–24
48	36.0	80.0	7,680	AZ851-48 *

* Not UL Approved

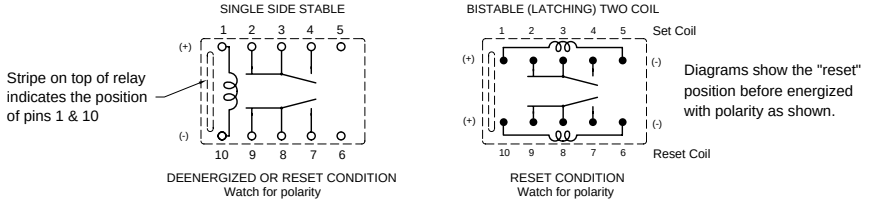
Bistable (Latching): 1 Coil				**ORDER NUMBER**
Nominal Coil VDC	**Set-/Reset VDC**	**Max. Continuous VDC**	**Coil Resistance Ohm ± 10%**	
3	2.25	8.7	90	AZ851P1–3
5	3.75	14.5	250	AZ851P1–5
6	4.5	17.4	360	AZ851P1–6
9	6.75	26.1	810	AZ851P1–9
12	9.0	34.8	1,440	AZ851P1–12
24	18.0	57.6	3,840	AZ851P1–24

Bistable (Latching): 2 Coils				**ORDER NUMBER**
Nominal Coil VDC	**Set-/Reset VDC**	**Max. Continuous VDC**	**Coil Resistance Ohm ± 10%**	
3	2.25	6.0	45	AZ851P2–3
5	3.75	10.0	125	AZ851P2–5
6	4.5	12.0	180	AZ851P2–6
9	6.75	18.0	405	AZ851P2–9
12	9.0	24.0	720	AZ851P2–12
24	18.0	40.0	1,920	AZ851P2–24

MECHANICAL DATA

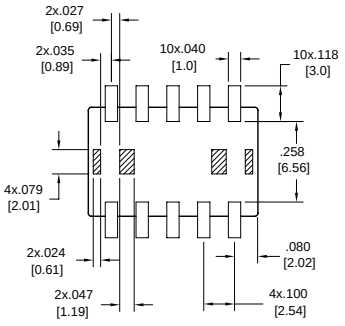


WIRING DIAGRAMS



VIEWED TOWARDS TERMINALS

PC BOARD LAYOUT



VIEWED TOWARDS TERMINALS

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

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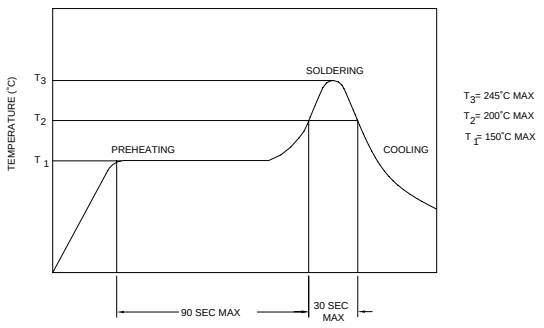
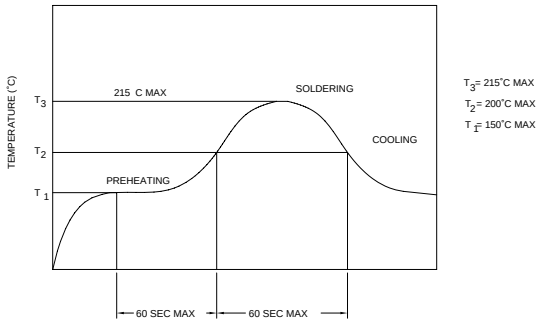
Soldering Data

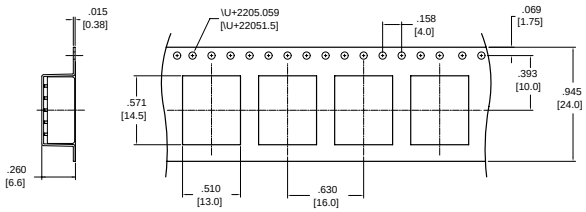
IRS (Infrared Reflow Soldering)



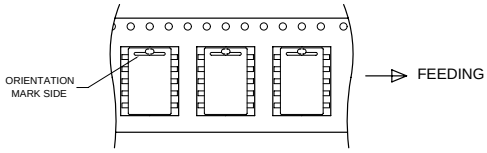
VPS (Vapor Phase Soldering)



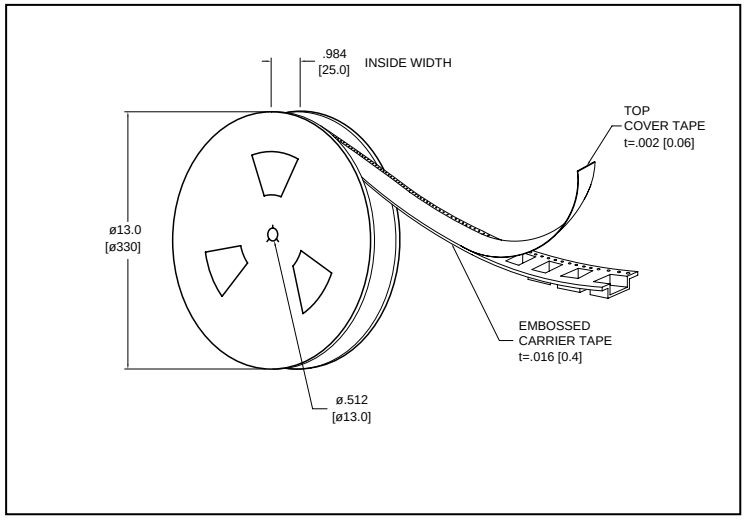
Tape Dimensions



Packaging



Reel Dimensions



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