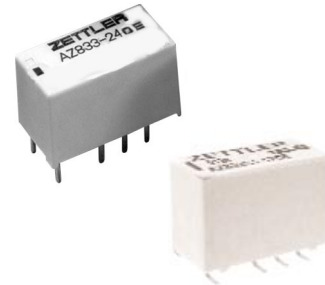


# AZ833P

## MICROMINIATURE POLARIZED LATCHING RELAY

### FEATURES

- Single and dual coil latching versions
- 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
- Low power consumption: 79 mW pickup
- Stable contact resistance for low level signal switching
- Epoxy sealed
- UL, CUR file E43203
- All plastics meet UL94 V-O, 30 min. oxygen index



### CONTACTS

<b>Arrangement</b>	DPDT (2 Form C) Bifurcated crossbar contacts
<b>Ratings</b>	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
<b>Rated Load UL/CSA</b>	0.25 A at 240 VAC 0.5 A at 125 VAC 2.0 A at 30 VDC 0.3 A at 110 VDC
<b>Material</b>	Silver nickel gold plated Silver palladium available upon request

### COIL (Polarized)

<b>Power At Pickup Voltage (typical)</b>	79 mW (dual coil) 39 mW (single coil)
<b>Max. Continuous Dissipation</b>	1.0 W at 20°C (68°F)
<b>Temperature Rise</b>	At nominal coil voltage 18°C (32°F)
<b>Temperature</b>	Max. 110°C (230°F)

### 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.

### GENERAL DATA

<b>Life Expectancy</b> <b>Mechanical</b> <b>Electrical</b>	Minimum operations 1 x 10 <sup>8</sup> 1 x 10 <sup>5</sup> at 0.5 A, 125 VAC, resistive 2 x 10 <sup>5</sup> at 1.0 A, 30 VDC, resistive
<b>Operate Time (set) (typical)</b>	3 ms at nominal coil voltage
<b>Release Time (reset) (typical)</b>	3 ms at nominal coil voltage (with no coil suppression)
<b>Bounce (typical)</b>	At 10 mA contact current 1 ms at operate or release
<b>Dielectric Strength (at sea level)</b>	See table
<b>Insulation Resistance</b>	10 <sup>9</sup> ohms min. at 25°C, 500 VDC, 50% RH
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	Operational, 35 g, 10–1000 Hz
<b>Shock</b>	Operational, 50 g min., 11 ms Non-destructive, 150 g min., 11 ms
<b>Max. Solder Temp. Temp./Time</b>	See soldering profile
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	2.5 grams
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Packing unit in pcs</b> <b>THT</b> <b>SMT</b>	50 per plastic tube / 1000 per carton box 400 per reel / 2000 per carton box

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2005-08-04

# AZ833P

## RELAY ORDERING DATA

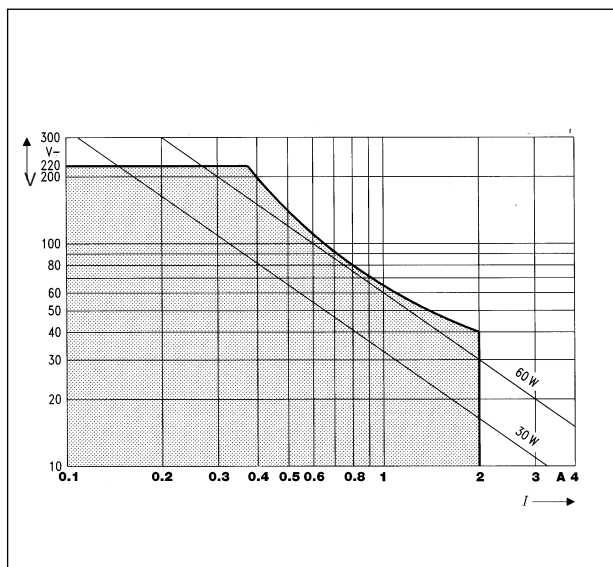
COIL SPECIFICATIONS						
STANDARD RELAYS: Bistable, 2 coils				Order Number		
Nominal Coil VDC	Set / Reset VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	THT Through Hole	SMT Long	SMT Short
3	2.25	6.5	64.3	AZ833P2-3DE	AZ833P2S1-3DE	AZ833P2S2-3DE
4.5	3.38	9.8	145	AZ833P2-4.5DE	AZ833P2S1-4.5DE	AZ833P2S2-4.5DE
5	3.75	10.9	178	AZ833P2-5DE	AZ833P2S1-5DE	AZ833P2S2-5DE
6	4.50	13.0	257	AZ833P2-6DE	AZ833P2-6DE	AZ833P2S2-6DE
9	6.75	19.6	578	AZ833P2-9DE	AZ833P2S1-9DE	AZ833P2S2-9DE
12	9.00	26.2	1,029	AZ833P2-12DE	AZ833P2S1-12DE	AZ833P2S2-12DE
24	18.00	52.3	4,114	AZ833P2-24DE	AZ833P2S1-24DE	AZ833P2S2-24DE

STANDARD RELAYS: Bistable, 1 coil				Order Number		
Nominal Coil VDC	Set / Reset VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	THT Through Hole	SMT Long	SMT Short
3	2.25	6.5	128	AZ833P1-3DE	AZ833P1S1-3DE	AZ833P1S2-3DE
4.5	3.38	9.8	289	AZ833P1-4.5DE	AZ833P1S1-4.5DE	AZ833P1S2-4.5DE
5	3.75	10.9	357	AZ833P1-5DE	AZ833P1S1-5DE	AZ833P1S2-5DE
6	4.50	13.0	514	AZ833P1-6DE	AZ833P1S1-6DE	AZ833P1S2-6DE
9	6.75	19.6	1,157	AZ833P1P1-9DE	AZ833P1S1-9DE	AZ833P1S2-9DE
12	9.00	26.2	2,057	AZ833P1-12DE	AZ833P1S1-12DE	AZ833P1S2-12DE
24	18.00	52.3	8,228	AZ833P1-24DE	AZ833P1S1-24DE	AZ833P1S2-24DE

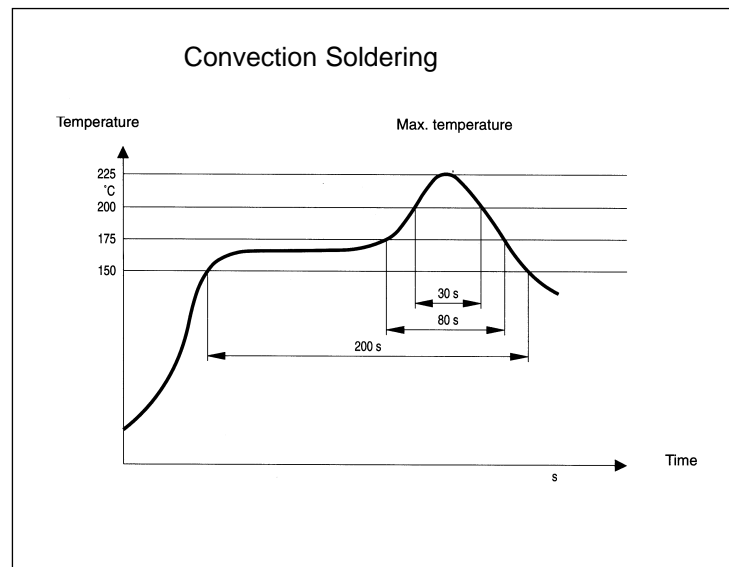
	INITIAL DIELECTRIC STRENGTH (minimum)		SURGE	
	VRMS, 1 min.	Peak (V)	Rise Time ( $\mu\text{s}$ )	Decay Time* (9 $\mu\text{s}$ ) (1/2 peak)
Between open contacts	1,000	1,500	10	160
Between contact sets	1,000	1,500	2	160
Between coil and contacts	1,800	2,500	2	10

\* Decay time measured from beginning of surge.

## LOAD LIMIT CURVE



## RECOMMENDED SOLDERING PROFILE



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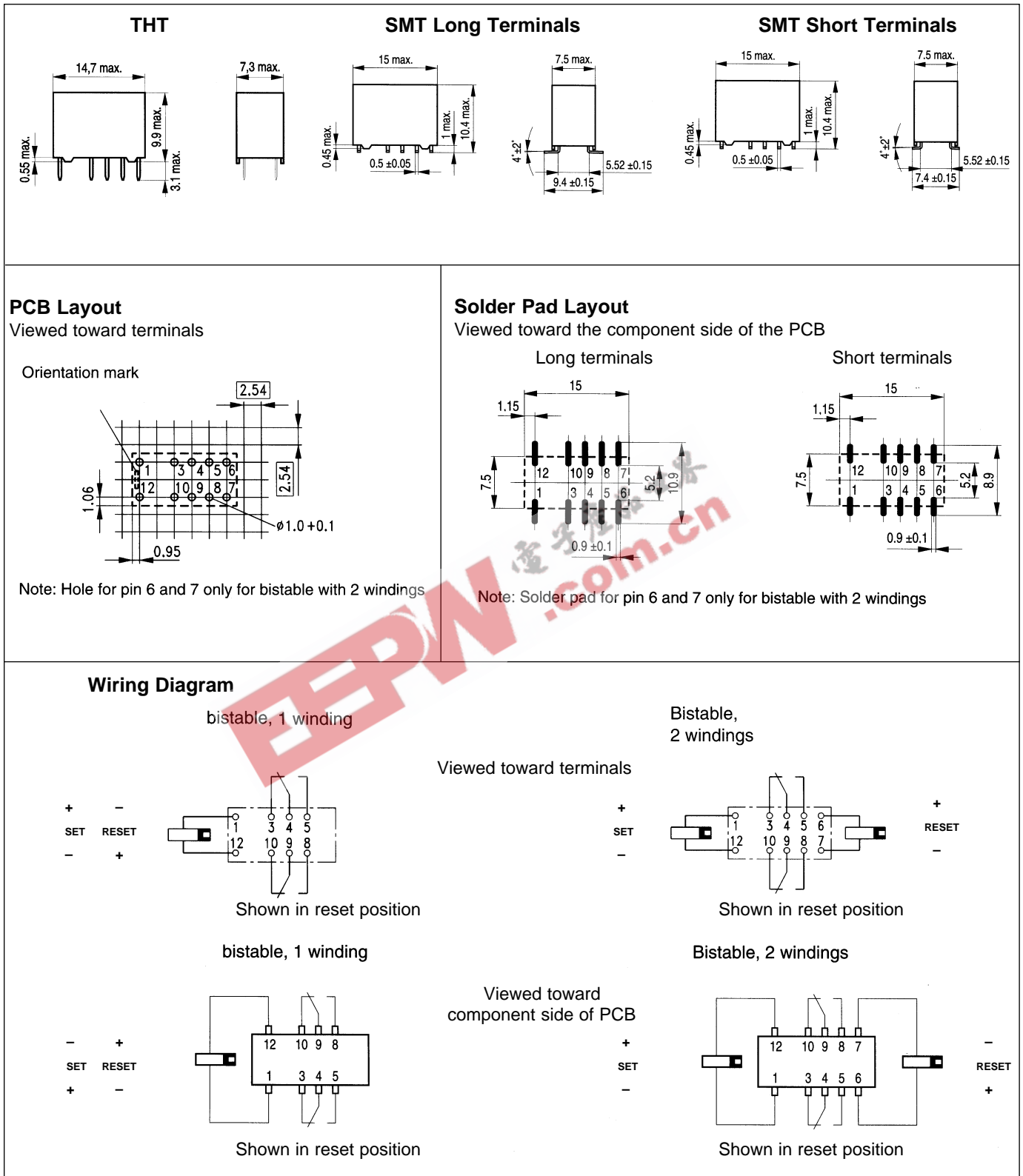
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## MECHANICAL DATA



All dimensions in mm

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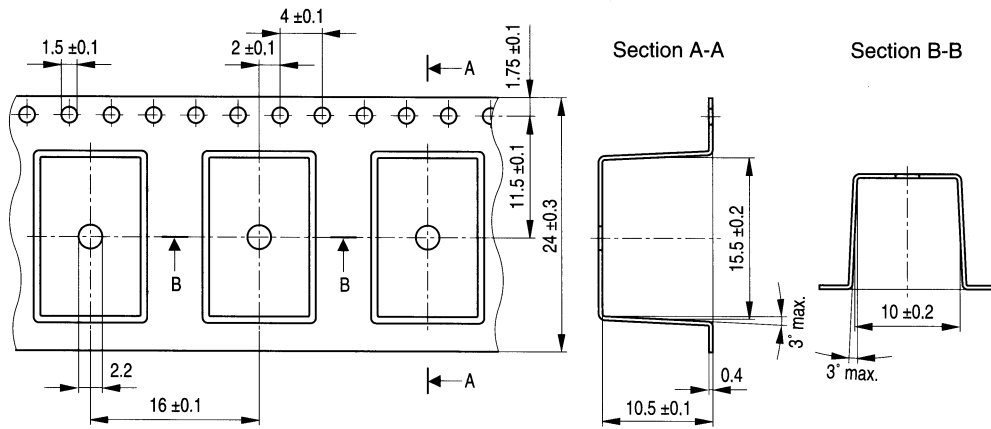
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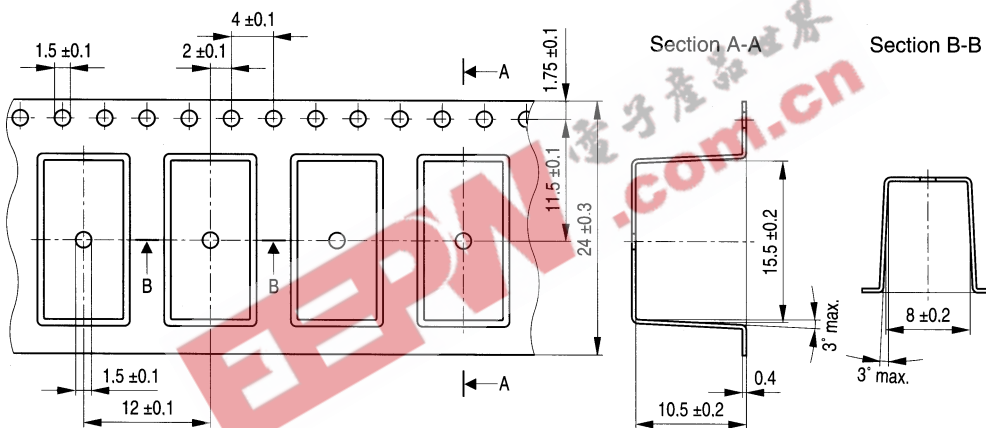
# AZ833P

## PACKAGING

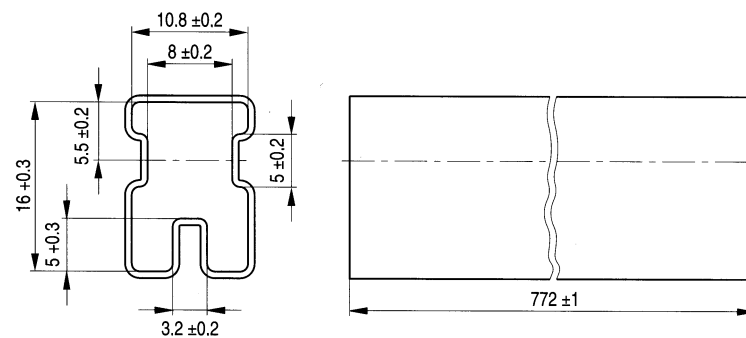
### Tape and reel for SMT version with long terminals – AZ833P1S1 or AZ833P2S1



### Tape and reel for SMT version with short terminals – AZ833P1S2 or AZ833P2S2



### Tube for THT version – AZ833P1 or AZ833P2



All dimensions in mm

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