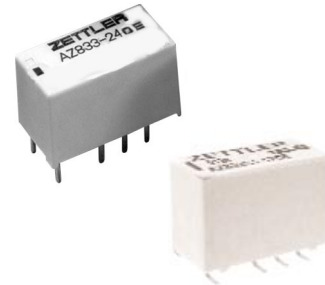


AZ833P

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

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

COIL (Polarized)

| | |
|--|--|
| Power At Pickup Voltage (typical) | 79 mW (dual coil) 39 mW (single coil) |
| Max. Continuous Dissipation | 1.0 W at 20°C (68°F) |
| Temperature Rise | At nominal coil voltage 18°C (32°F) |
| Temperature | 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

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

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AZ833P

RELAY ORDERING DATA

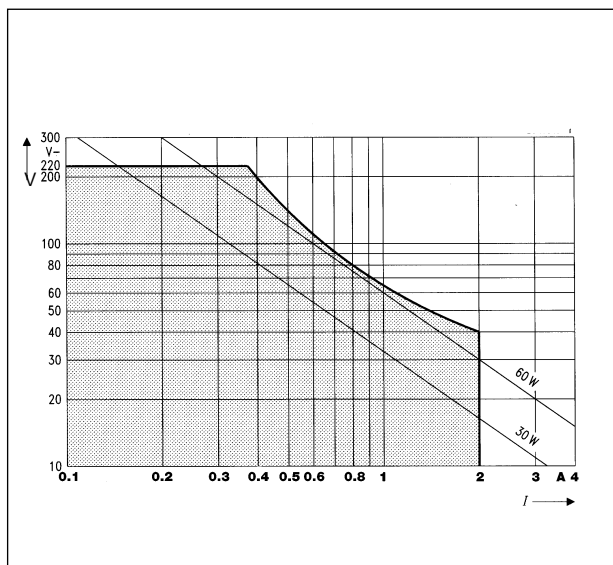
| COIL SPECIFICATIONS | | | | | | |
|------------------------------------|-----------------|---------------------|--------------------------------|------------------|-----------------|-----------------|
| STANDARD RELAYS: Bistable, 2 coils | | | | Order Number | | |
| Nominal Coil VDC | Set / Reset VDC | 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 |

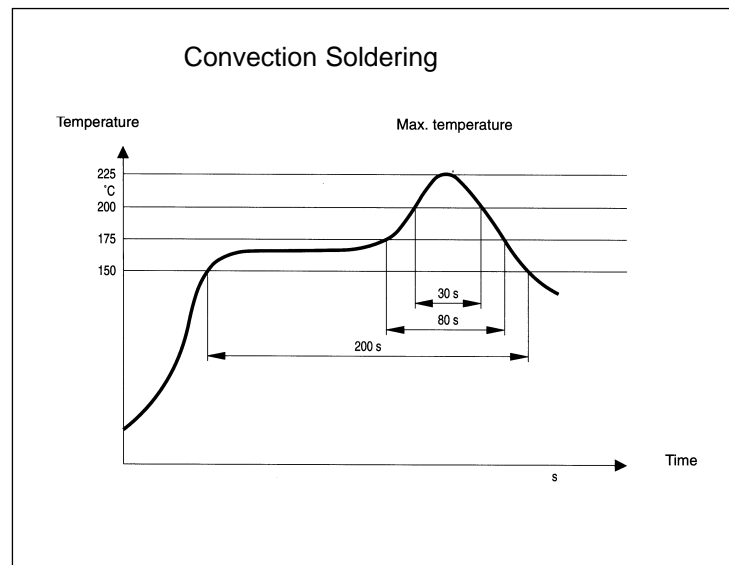
| | INITIAL DIELECTRIC STRENGTH (minimum) | | SURGE | |
|---------------------------|---------------------------------------|----------|-----------------------------|---|
| | VRMS, 1 min. | Peak (V) | Rise Time (μs) | Decay Time* (9 μs) (1/2 peak) |
| Between open contacts | 1,000 | 1,500 | 10 | 160 |
| 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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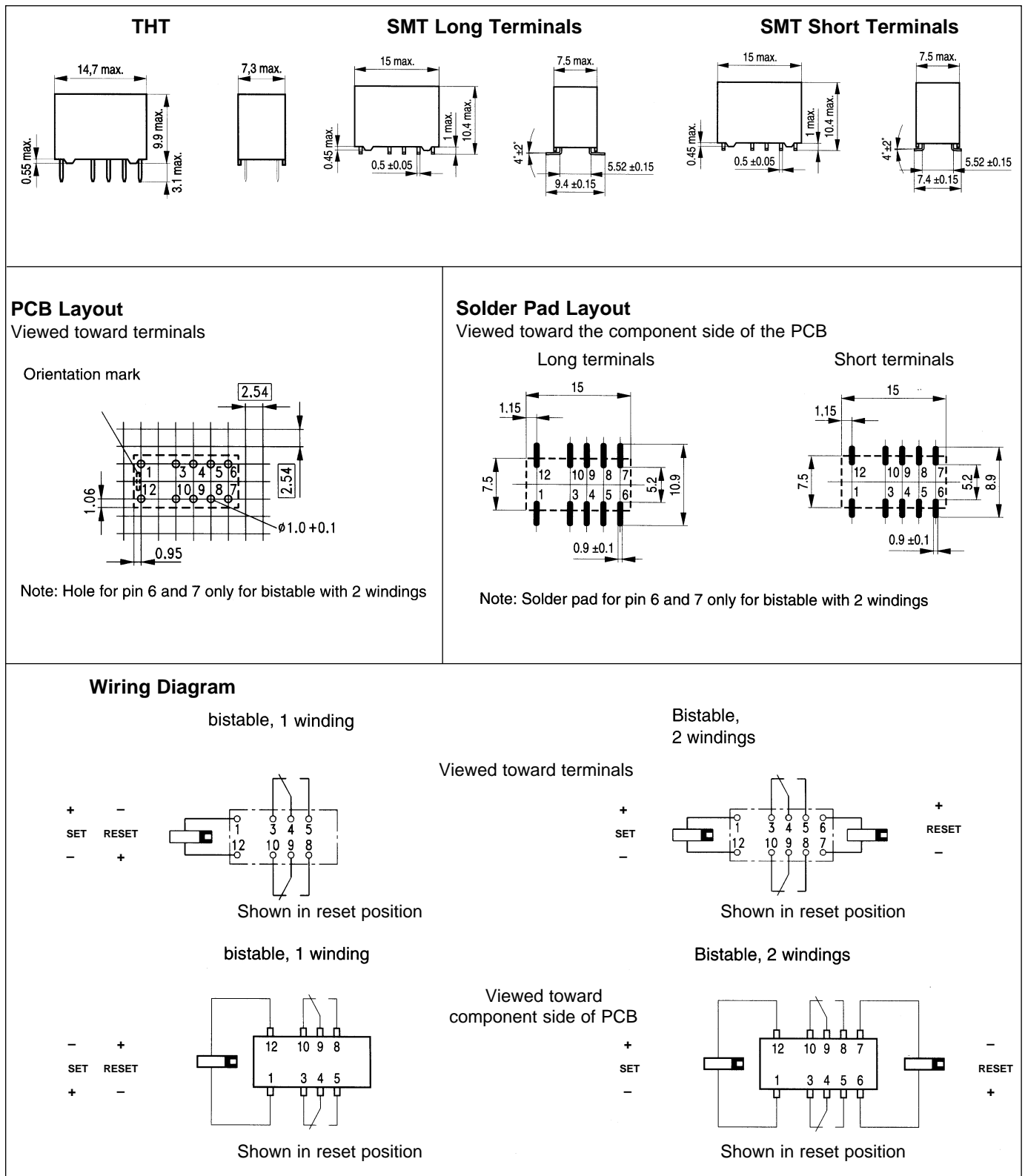
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2005-08-04

AZ833P

MECHANICAL DATA



All dimensions in mm

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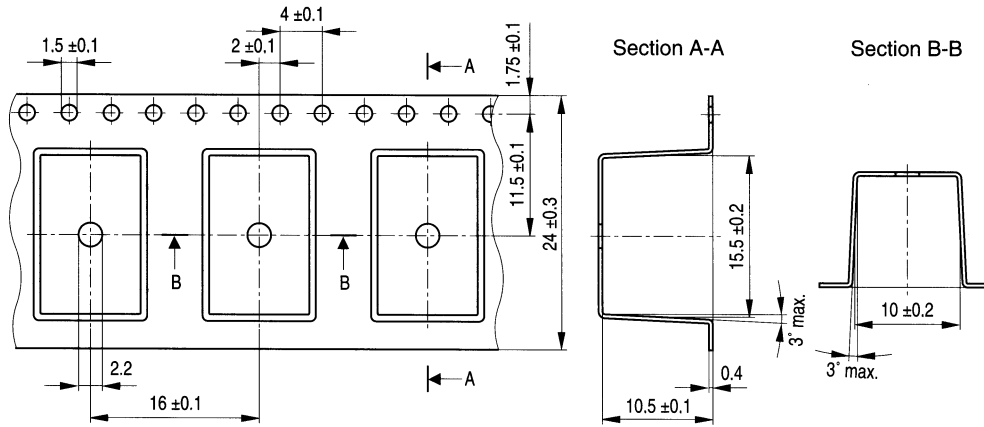
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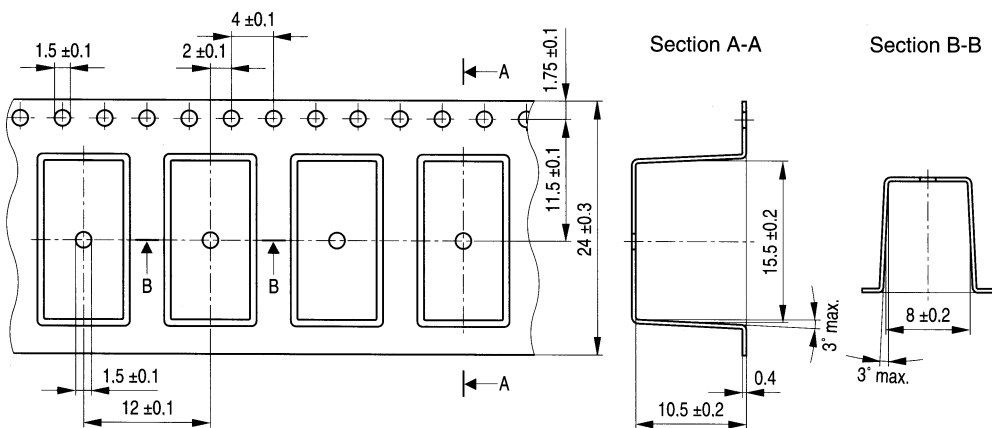
AZ833P

PACKAGING

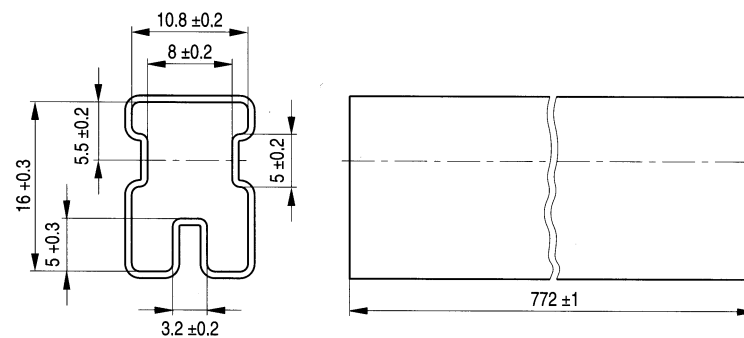
Tape and reel for SMT version with long terminals – AZ833P1S1 or AZ833P2S1



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



Tube for THT version – AZ833P1 or AZ833P2



50 items / tube

All dimensions in mm

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