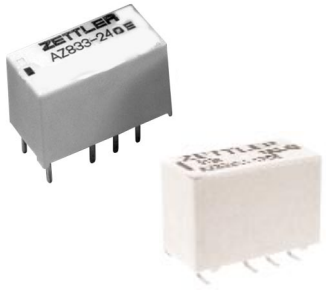
# AZ833P

## 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)<br>Bifurcated crossbar contacts |
| **Ratings** | Resistive load:<br>Max. switched power: 60 W or 62.5 VA<br>Max. switched current: 2.0 A<br>Max. switched voltage: 220 VDC or 250 VAC |
| **Rated Load**<br>**UL/CSA** | 0.25 A at 240 VAC<br>0.5 A at 125 VAC<br>2.0 A at 30 VDC<br>0.3 A at 110 VDC |
| **Material** | Silver nickel gold plated<br>Silver palladium available upon request |

### COIL (Polarized)

| | |
|---|---|
| **Power** | |
| **At Pickup Voltage (typical)** | 79 mW (dual coil)<br>39 mW (single coil) |
| **Max. Continuous Dissipation** | 1.0 W at 20°C (68°F) |
| **Temperature Rise** | At nominal coil voltage<br>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**<br>**Mechanical**<br>**Electrical** | Minimum operations<br>1 x $10^8$<br>1 x $10^5$ at 0.5 A, 125 VAC, resistive<br>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<br>(with no coil suppression) |
| **Bounce (typical)** | At 10 mA contact current<br>1 ms at operate or release |
| **Dielectric Strength (at sea level)** | See table |
| **Insulation Resistance** | $10^9$ ohms min. at 25°C, 500 VDC,<br>50% RH |
| **Ambient Temperature**<br>**Operating**<br>**Storage** | At nominal coil voltage<br>-40°C (-40°F) to 85°C (185°F)<br>-40°C (-40°F) to 105°C (221°F) |
| **Vibration** | Operational, 35 g, 10–1000 Hz |
| **Shock** | Operational, 50 g min., 11 ms<br>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**<br>**THT**<br>**SMT** | <br>50 per plastic tube / 1000 per carton box<br>400 per reel / 2000 per carton box |

**ZETTLER electronics GmbH**
Junkersstrasse 3, D-82178 Puchheim, Germany
Tel. +49 89 800 97 0 office@ZETTLERelectronics.com
Fax +49 89 800 97 200 www.ZETTLERelectronics.com

2005-08-04

# AZ833P

## RELAY ORDERING DATA

### COIL SPECIFICATIONS

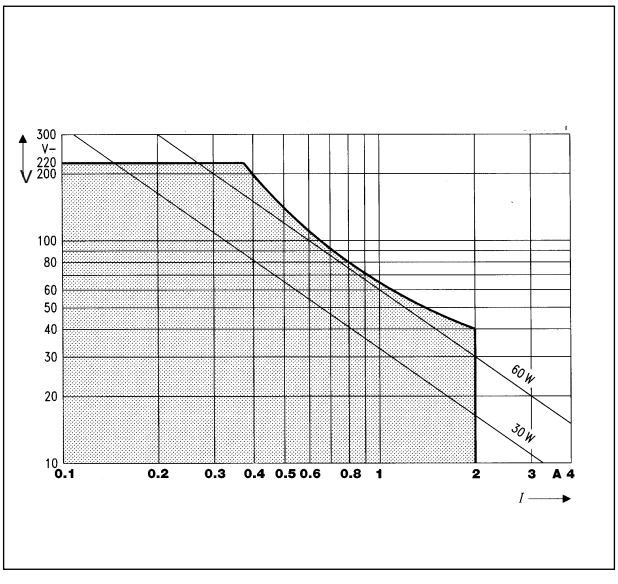
| STANDARD RELAYS: Bistable, 2 coils | | | | Order Number | | |
|---|---|---|---|---|---|---|
| Nominal Coil VDC | Set / Reset VDC | Max. Continuous VDC | Coil Resistance Ohm ± 10% | THT Through Hole | SMT Long | SMT Short |
| 3 | 2.25 | 6.5 | 64.3 | AZ833P2–3DE | AZ833P2S1–3DE | AZ833P2S2–3DE |
| 4.5 | 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 ± 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 |

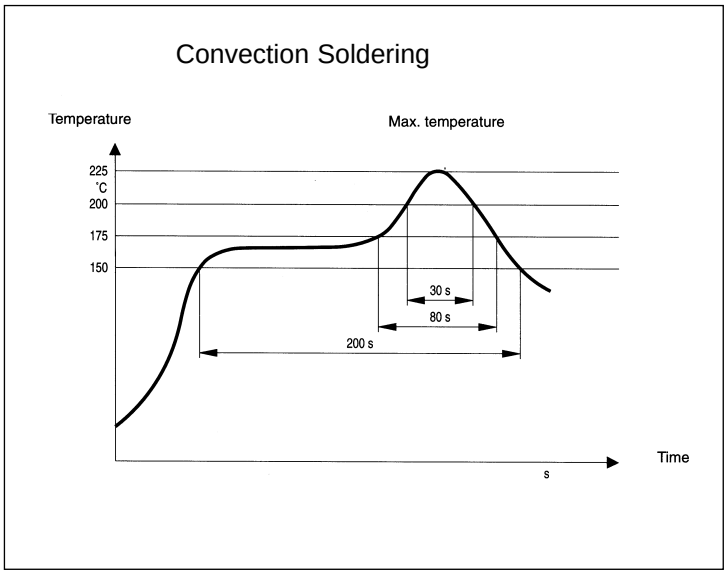
| INITIAL DIELECTRIC STRENGTH (minimum) | | SURGE | | |
|---|---|---|---|---|
| | VRMS, 1 min. | Peak (V) | Rise Time (µS) | Decay Time* (9µS) (1/2 peak) |
| Between open contacts | 1,000 | 1,500 | 10 | 160 |
| Between contact sets | 1,000 | 1,500 | 2 | 160 |
| Between coil and contacts | 1,800 | 2,500 | 2 | 10 |

* Decay time measured from beginning of surge.

## LOAD LIMIT CURVE




## RECOMMENDED SOLDERING PROFILE





**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

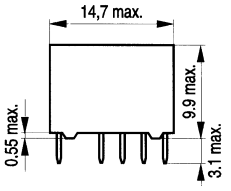
Tel. +49 89 800 97 0 office@ZETTLERelectronics.com
Fax +49 89 800 97 200 www.ZETTLERelectronics.com


2005-08-04

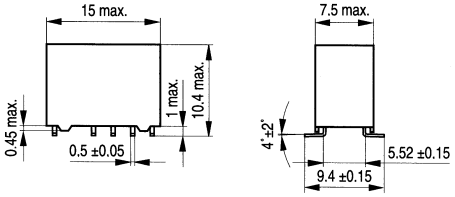
# AZ833P

## MECHANICAL DATA

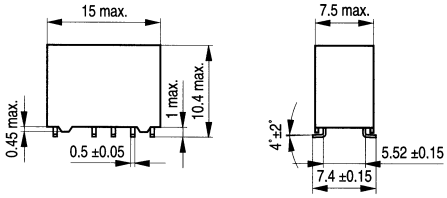
**THT**




**SMT Long Terminals**



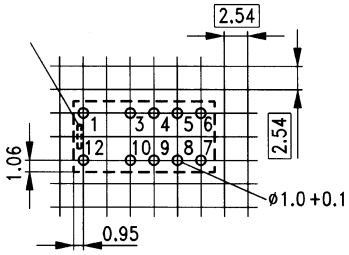

**SMT Short Terminals**




### PCB Layout

Viewed toward terminals

Orientation mark

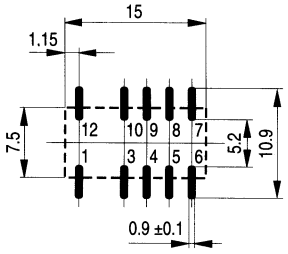



Note: Hole for pin 6 and 7 only for bistable with 2 windings

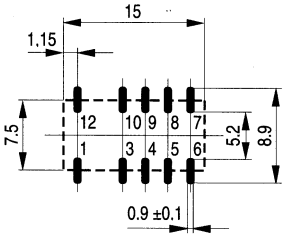
### Solder Pad Layout

Viewed toward the component side of the PCB

Long terminals



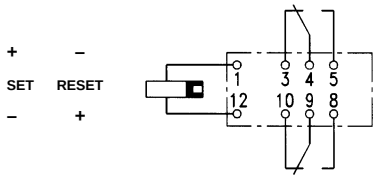

Short terminals




Note: Solder pad for pin 6 and 7 only for bistable with 2 windings

### Wiring Diagram

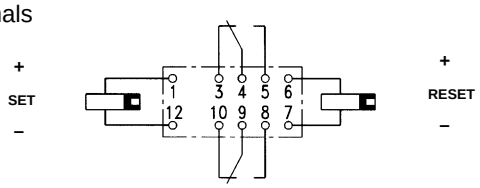
bistable, 1 winding




Shown in reset position

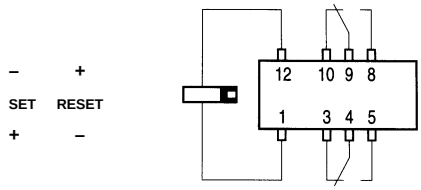
Bistable,
2 windings

Viewed toward terminals




Shown in reset position

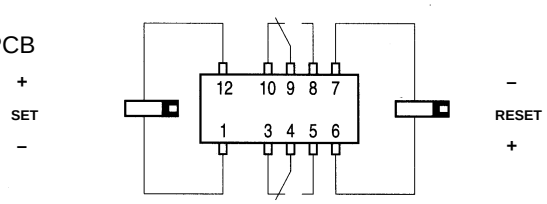
bistable, 1 winding




Shown in reset position

Bistable, 2 windings

Viewed toward
component side of PCB




Shown in reset position

All dimensions in mm


**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

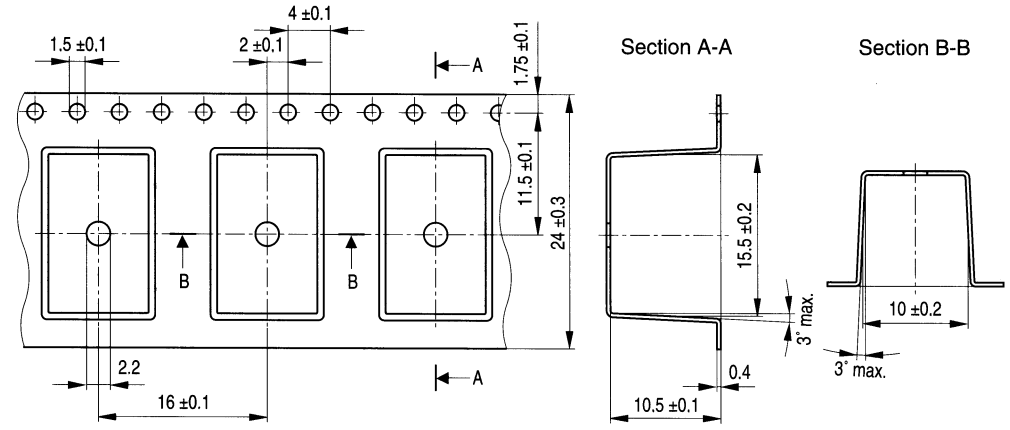
Tel. +49 89 800 97 0 office@ZETTLERelectronics.com
Fax +49 89 800 97 200 www.ZETTLERelectronics.com


2005-08-04

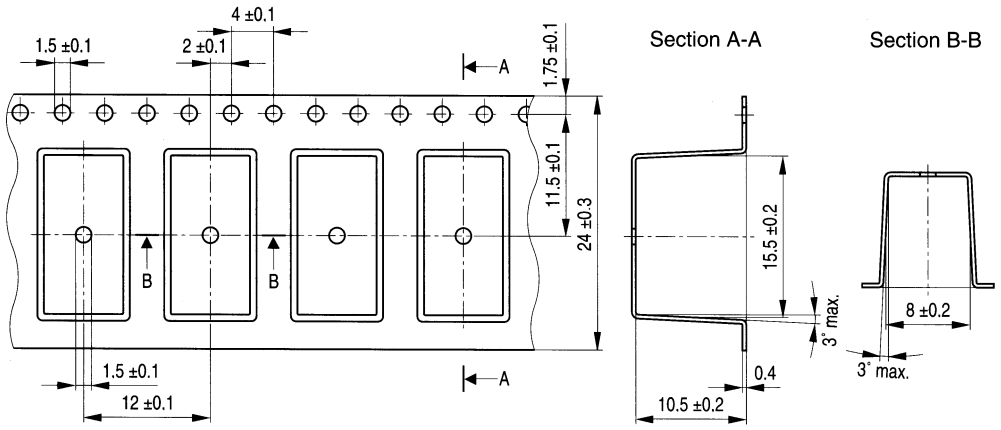
# AZ833P

## PACKAGING

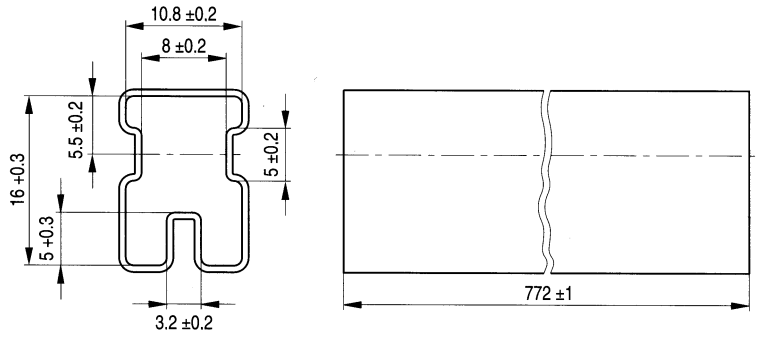
### Tape and reel for SMT version with long terminals – AZ833P1S1 or AZ833P2S1




### 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


**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0 office@ZETTLERelectronics.com

Fax +49 89 800 97 200 www.ZETTLERelectronics.com


2005-08-04

Стандарт Электрон Связь

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** sales@st-electron.ru

**Адрес:** 198099, Санкт-Петербург, Промышленная ул, дом № 19, литера Н, помещение 100-Н Офис 331