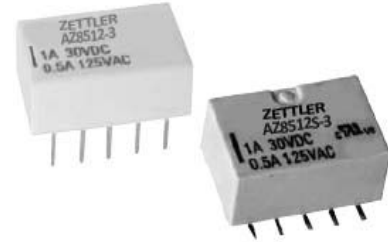


AZ8512

MICROMINIATURE POLARIZED RELAY

FEATURES

- Microminiature size: Height: .212 inches (5.4 mm); Length: .551 inches (14.0 mm); Width: .354 inches (9.0 mm)
- Low power consumption
- Meets FCC Part 68.302 1500 V lightning surge
- Surface mount type with "L" shaped terminals
- Single side stable and latching available
- Epoxy sealed for automatic wave soldering and cleaning
- UL, CUR file E43203



CONTACTS

| | |
|--------------------------|--|
| Arrangement | DPDT (2 Form C) |
| Ratings | Resistive load: Max. switched power: 30 W or 62.5 VA Max. switched current: 2A Max. switched voltage: 110 VDC or 125 VAC |
| Rated Load UL | 2 A at 30 VDC resistive (100K cycles, 40°C) 1 A at 30 VDC resistive (200K cycles, 70°C) 0.5 A at 125 VAC resistive (100K cycles, 70°C) |
| Material | AgNi + Au plated - Bifurcated |
| Resistance | < 100 milliohms initially |

COIL (Polarized)

| | |
|--|---|
| Power At Pickup Voltage (typical) | 79mW Single Side Stable 56mW 1 Coil Latching 113mW 2 Coils Latching |
| 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 1A, 30 VDC resistive 1 x 10 ⁵ at 0.5A, 125VAC resistive |
| Operate Time (typical) | 3 ms at nominal coil voltage |
| Release Time (typical) | 3 ms at nominal coil voltage (with no coil suppression) |
| Dropout | Greater than 10% of nominal coil voltage |
| Dielectric Strength (at sea level) | 1000 Vrms between contact sets 750 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 |
| Humidity | 5% to 85% RH |
| Ambient Temperature Operating | At nominal coil voltage -40°C (-40°F) to 70°C (185°F) |
| Vibration Functional Destructive | .118" DA 10 to 55 Hz .197" DA 10 to 55Hz |
| Shock Functional Destructive | 50 G 100 G |
| Enclosure | Plastic sealed |
| Terminals | copper alloy, DIP, SMT |
| Weight | 1.5 grams |

AMERICAN ZETTLER, INC.

12/09/2015

AZ8512

RELAY ORDERING DATA

| COIL SPECIFICATIONS - SINGLE SIDE STABLE | | | | ORDER NUMBER* |
|--|------------------|--------------------|----------------------------|---------------|
| Nominal Coil VDC | Must Operate VDC | Max Continuous VDC | Coil Resistance $\pm 10\%$ | |
| 1.5 | 1.13 | 2.25 | 16 | AZ8512-1.5 |
| 2.4 | 1.8 | 3.6 | 41.3 | AZ8512-2.4 |
| 3 | 2.25 | 4.5 | 64.3 | AZ8512-3 |
| 4.5 | 3.38 | 6.7 | 145 | AZ8512-4.5 |
| 5 | 3.75 | 7.5 | 178 | AZ8512-5 |
| 6 | 4.5 | 9.0 | 257 | AZ8512-6 |
| 9 | 6.75 | 13.5 | 579 | AZ8512-9 |
| 12 | 9.0 | 18.0 | 1028 | AZ8512-12 |
| 24 | 18.0 | 36.0 | 2880 | AZ8512-24 |

*Add suffix "S" after AZ8512 for surface mount. Add suffix "TR" for tape & reel package (600 relays per reel)

| COIL SPECIFICATIONS - 1 COIL LATCHING | | | | ORDER NUMBER* |
|---------------------------------------|------------------|--------------------|----------------------------|---------------|
| Nominal Coil VDC | Must Operate VDC | Max Continuous VDC | Coil Resistance $\pm 10\%$ | |
| 1.5 | 1.13 | 2.25 | 22.5 | AZ8512P1-1.5 |
| 2.4 | 1.8 | 3.6 | 58 | AZ8512P1-2.4 |
| 3 | 2.25 | 4.5 | 90 | AZ8512P1-3 |
| 4.5 | 3.38 | 6.7 | 203 | AZ8512P1-4.5 |
| 5 | 3.75 | 7.5 | 250 | AZ8512P1-5 |
| 6 | 4.5 | 9.0 | 360 | AZ8512P1-6 |
| 9 | 6.75 | 13.5 | 810 | AZ8512P1-9 |
| 12 | 9.0 | 18.0 | 1440 | AZ8512P1-12 |
| 24 | 18.0 | 36.0 | 3840 | AZ8512P1-24 |

*Add suffix "S" after AZ8512P1 for surface mount. Add suffix "TR" for tape & reel package (600 relays per reel)

| COIL SPECIFICATIONS - 2 COIL LATCHING | | | | ORDER NUMBER* |
|---------------------------------------|------------------|--------------------|----------------------------|---------------|
| Nominal Coil VDC | Must Operate VDC | Max Continuous VDC | Coil Resistance $\pm 10\%$ | |
| 1.5 | 1.13 | 2.25 | 11.3 | AZ8512P2-1.5 |
| 2.4 | 1.8 | 3.6 | 29 | AZ8512P2-2.4 |
| 3 | 2.25 | 4.5 | 45 | AZ8512P2-3 |
| 4.5 | 3.38 | 6.7 | 101 | AZ8512P2-4.5 |
| 5 | 3.75 | 7.5 | 125 | AZ8512P2-5 |
| 6 | 4.5 | 9.0 | 180 | AZ8512P2-6 |
| 9 | 6.75 | 13.5 | 405 | AZ8512P2-9 |
| 12 | 9.0 | 18.0 | 720 | AZ8512P2-12 |
| 24 | 18.0 | 36.0 | 1920 | AZ8512P2-24 |

*Add suffix "S" after AZ8512P2 for surface mount. Add suffix "TR" for tape & reel package (600 relays per reel)

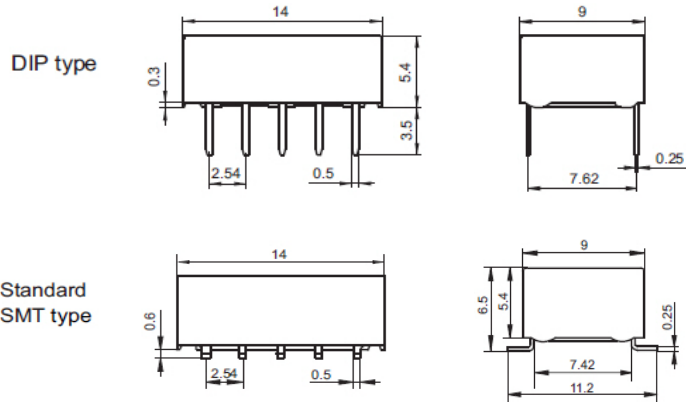
AMERICAN ZETTLER, INC.

12/09/2015

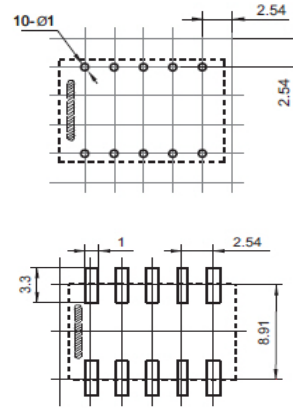
AZ8512

MECHANICAL DATA

Outline Dimensions

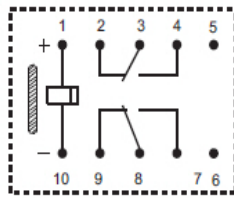


PCB Layout
(Bottom view)



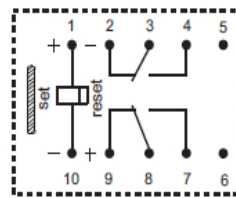
Wiring Diagram

Single side stable



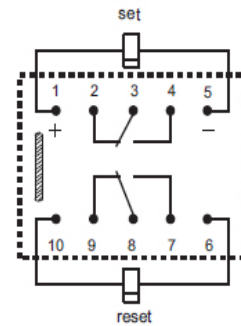
Deenergized condition

1 coil latching



Reset condition

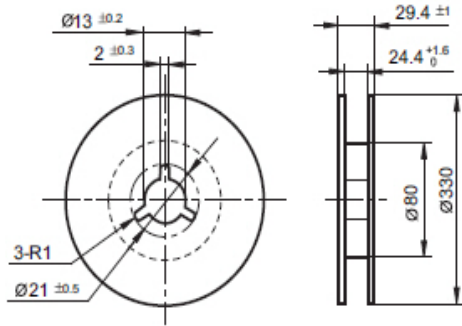
2 coils latching



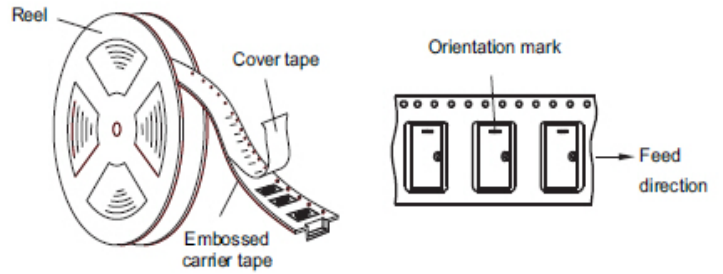
Reset condition

AZ8512

Reel Dimensions

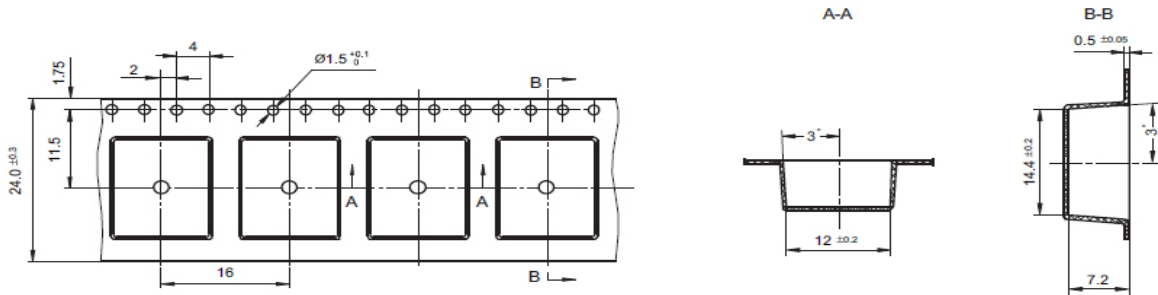


Direction of Relay Insertion

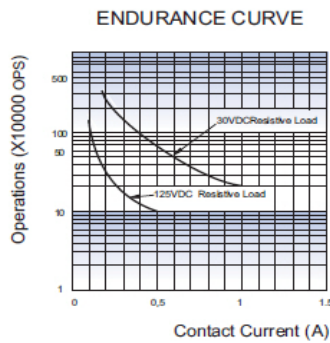
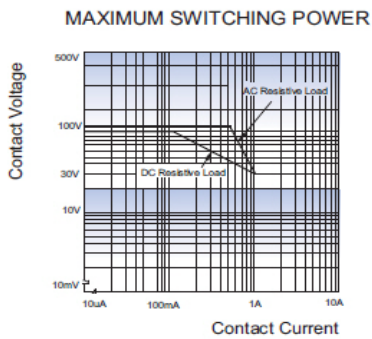


- Notes: 1) Packing: 600pcs/reel, 4 reels/carton.
2) MOQ for reel packing is 600pcs.

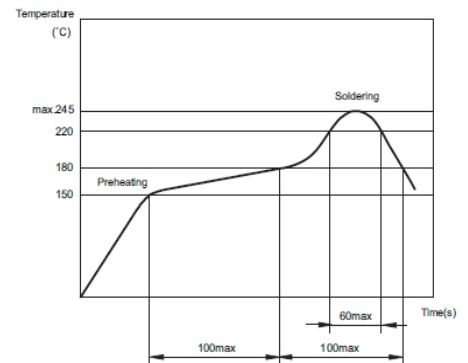
Tape Dimensions



Characteristic Curves



Recommended Temperature/Time Reflow Soldering Profile



AMERICAN ZETTLER, INC.

12/09/2015

PHONE: (949) 831-5000

www.azettler.com

E-MAIL: SALES@AZETTLER.COM

This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.