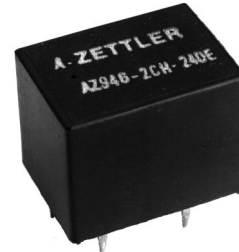


# AZ946

## MINIATURE PC BOARD RELAY

### FEATURES

- Subminiature size
- High sensitivity, 288 mW pick up
- Coils to 24 VDC
- Epoxy sealed for automatic wave soldering
- Contacts rated at 1 or 5 Amps
- Life expectancy to 20 million operations
- Extremely low cost
- UL, CUR file E43203



### CONTACTS

|                     |                                                                                                                                                                                                                                                                                                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Arrangement</b>  | 2 Form C (DPDT)                                                                                                                                                                                                                                                                                                                  |
| <b>Max. Ratings</b> | Noninductive load:                                                                                                                                                                                                                                                                                                               |
| <b>Light Duty</b>   | Max. switched power: 30 W or 277 VA<br>Max. switched current: 1 A<br>Max. switched voltage: 150* VDC or 300 VAC<br><b>UL Rating:</b> 1 A at 30 VDC resistive<br>1 A at 277 VAC general use<br>(100k cycles)                                                                                                                      |
| <b>Medium Duty</b>  | Max. switched power: 150 W or 1385 VA<br>Max. switched current: 5 A<br>Max. switched voltage: 150* VDC or 300 VAC<br><b>UL Rating:</b> 5 A at 30 VDC resistive<br>5 A at 277 VAC general use<br>(100k cycles)<br><br>* If switching voltage is greater than 30 VDC special precautions must be taken. Please contact the factory |
| <b>Material</b>     | Light Duty: Silver, gold plated<br>Medium Duty: Silver Cadmium Oxide, gold plated                                                                                                                                                                                                                                                |
| <b>Resistance</b>   | Light Duty: 100 milliohms max. initially<br>Medium Duty: 100 milliohms max.<br>(6 V 1 A method)                                                                                                                                                                                                                                  |

### COIL

|                                    |                                               |
|------------------------------------|-----------------------------------------------|
| <b>Power</b>                       |                                               |
| <b>At Pickup Voltage (typical)</b> | 384 mW standard<br>288 mW sensitive           |
| <b>Max. Continuous Dissipation</b> | 1.2 W at 20°C (68°F)                          |
| <b>Temperature Rise</b>            | 35°C (63°F) standard<br>30°C (54°F) sensitive |
| <b>Max. Temperature</b>            | 105°C (221°F)                                 |

### GENERAL DATA

|                                                                      |                                                                                                                                             |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Life Expectancy</b><br><b>Mechanical</b><br><b>Electrical</b>     | Minimum operations<br>2 x 10 <sup>7</sup><br>1 x 10 <sup>5</sup> (at rated load)                                                            |
| <b>Operate Time (typical)</b>                                        | 5 ms at nominal coil voltage                                                                                                                |
| <b>Release Time (typical)</b>                                        | 5 ms at nominal coil voltage<br>(with no coil suppression)                                                                                  |
| <b>Dielectric Strength</b><br>(at sea level for 1 min.)              | 1000 Vrms coil to contact<br>750 Vrms between open contacts<br>1000 Vrms contact set to contact set                                         |
| <b>Insulation Resistance</b>                                         | 100 megohms min. at 20°C, 500 VDC,<br>50% RH                                                                                                |
| <b>Dropout</b>                                                       | Greater than 10% of nominal coil voltage                                                                                                    |
| <b>Ambient Temperature</b><br><b>Operating</b><br><br><b>Storage</b> | At nominal coil voltage<br>-10°C (14°F) to 60°C (140°F) standard<br>-10°C (14°F) to 70°C (158°F) sensitive<br>-10°C (14°F) to 105°C (221°F) |
| <b>Vibration</b>                                                     | 0.062" (1.5 mm) DA at 5–55 Hz                                                                                                               |
| <b>Shock</b>                                                         | 10 g                                                                                                                                        |
| <b>Enclosure</b>                                                     | P.B.T. polyester                                                                                                                            |
| <b>Terminals</b>                                                     | Tinned copper alloy, P.C.                                                                                                                   |
| <b>Max. Solder Temp.</b>                                             | 270°C (518°F)                                                                                                                               |
| <b>Max. Solder Time</b>                                              | 5 seconds                                                                                                                                   |
| <b>Max. Solvent Temp.</b>                                            | 80°C (176°F)                                                                                                                                |
| <b>Max. Immersion Time</b>                                           | 30 seconds                                                                                                                                  |
| <b>Weight</b>                                                        | 12 grams                                                                                                                                    |

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.
4. Unsealed relays should not be dipped cleaned

**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0  
Fax +49 89 800 97 200

office@ZETTLERelectronics.com  
www.ZETTLERelectronics.com

# AZ946

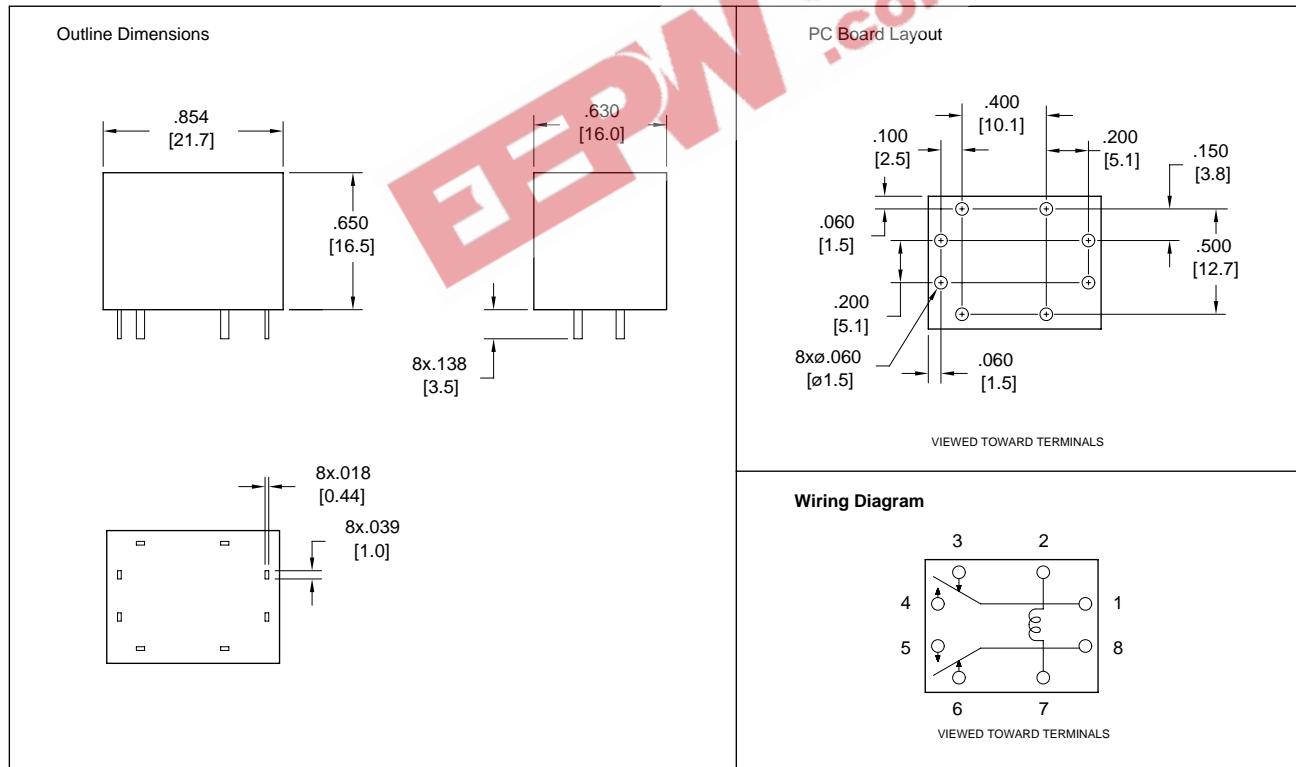
## RELAY ORDERING DATA

| COIL SPECIFICATIONS - Medium Duty (5 Amp Contact) |                  |                     |                            |               |                |
|---------------------------------------------------|------------------|---------------------|----------------------------|---------------|----------------|
| Nominal Coil VDC                                  | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | ORDER NUMBER  |                |
|                                                   |                  |                     |                            | Unsealed      | Sealed         |
| 3                                                 | 2.4              | 4.2                 | 15                         | AZ946-2CH-3D  | AZ946-2CH-3DE  |
| 5                                                 | 4.0              | 7.1                 | 42                         | AZ946-2CH-5D  | AZ946-2CH-5DE  |
| 6                                                 | 4.8              | 8.4                 | 60                         | AZ946-2CH-6D  | AZ946-2CH-6DE  |
| 9                                                 | 7.2              | 12.7                | 135                        | AZ946-2CH-9D  | AZ946-2CH-9DE  |
| 12                                                | 9.6              | 16.9                | 240                        | AZ946-2CH-12D | AZ946-2CH-12DE |
| 24                                                | 19.2             | 33.9                | 960                        | AZ946-2CH-24D | AZ946-2CH-24DE |

## RELAY ORDERING DATA

| COIL SPECIFICATIONS - Light Duty (1 Amp Contact) |                  |                     |                            |               |                |
|--------------------------------------------------|------------------|---------------------|----------------------------|---------------|----------------|
| Nominal Coil VDC                                 | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | ORDER NUMBER  |                |
|                                                  |                  |                     |                            | Unsealed      | Sealed         |
| 3                                                | 2.4              | 4.9                 | 20                         | AZ946-2C-3DS  | AZ946-2C-3DSE  |
| 5                                                | 4.0              | 8.2                 | 56                         | AZ946-2C-5DS  | AZ946-2C-5DSE  |
| 6                                                | 4.8              | 9.8                 | 80                         | AZ946-2C-6DS  | AZ946-2C-6DSE  |
| 9                                                | 7.2              | 14.7                | 180                        | AZ946-2C-9DS  | AZ946-2C-9DSE  |
| 12                                               | 9.6              | 19.6                | 320                        | AZ946-2C-12DS | AZ946-2C-12DSE |
| 24                                               | 19.2             | 39.0                | 1280                       | AZ946-2C-24DS | AZ946-2C-24DSE |

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "

**ZETTLER electronics GmbH**

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0

Fax +49 89 800 97 200

office@ZETTLERelectronics.com

www.ZETTLERelectronics.com