



# Miniature 10 Amps • 2PDT To MIL-PRF-83536

## SPECIFICATIONS

## GENERAL

**Contact Arrangement**..... 2PDT (2 Form C)  
**Weight**..... 1.6 oz approx.  
 Designed to meet the requirements of MIL-PRF-83536

## PERFORMANCE

**Contact Rating** (Note 1)

|                |                                                                                       |
|----------------|---------------------------------------------------------------------------------------|
| Resistive..... | 10 Amps @ 28 VDC or<br>115/208V 400 Hz<br>(Case Grounded)                             |
| Inductive..... | 8 Amps @ 28 VDC or<br>115/208V 400 Hz<br>2.5 Amps @ 115/208V 60 Hz<br>(Case Grounded) |
| Motor.....     | 4 Amps @ 28 VDC or<br>115/208V 400 Hz<br>2 Amps @ 115/208V 60 Hz<br>(Case Grounded)   |
| Lamp.....      | 2 Amps @ 28 VDC or<br>115/208V 400 Hz<br>1.5 Amps @ 115/208V 60 Hz<br>(Case Grounded) |

**Life** ..... 100,000 operations minimum @ rated  
resistive load, 125°C

**Pull In Power** ..... 500 mw approx.

|                                               |                |                |
|-----------------------------------------------|----------------|----------------|
| <b>Operate/Release Time:</b>                  | <b>DC Coil</b> | <b>AC Coil</b> |
|                                               | 15 ms max      | 50 ms max      |
| Excluding bounce time at nominal coil voltage |                |                |

**Contact Bounce Time**..... 1 ms max  
@ rated contact load, 28 VDC

**Contact Voltage Drop:**

|                   |                      |
|-------------------|----------------------|
| Before Life ..... | 100 mv max @ 10 Amps |
|                   | and 6 VDC            |
| After Life .....  | 125 mv max @ 10 Amps |
|                   | and 6 VDC            |

## ENVIRONMENTAL

**Temperature Range**..... -70°C to +125°C

**Vibration** (Note 2).....0.12" DA 10 - 70 Hz  
30 G's 70 - 3,000 Hz

**Shock (Operating)(Note 2) .....**200 G's 6 ms

## ELECTRICAL CHARACTERISTICS

**Duty Cycle**..... Continuous

**Insulation Resistance** ..... 100 megohms  
@ 500V 25°C

**Dielectric Strength:**

Sea Level:

Contact to Case ..... 1,250 VRMS

|                       |            |
|-----------------------|------------|
| Contact to Case ..... | 1,250 VRMS |
| Contact to Coil ..... | 1,250 VRMS |

Coil to Case ..... 1,000 VRMS

Across Open Contacts ..... 1,250 VRMS

80.000 Feet:

All Points..... 350 VRMS

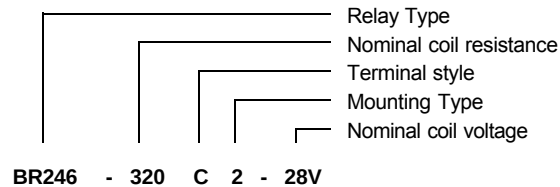
**MIL-PRF-83536/9 QUALIFIED to ER level M**

## Notes

1. For other ratings consult the factory.
2. For applications requiring higher shock and vibration, consult the factory.
3. AC coil line frequency 50 to 400 Hz.

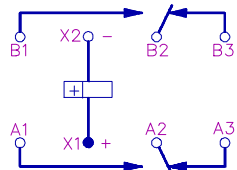
## COIL DATA

| MODEL BR246 PART NUMBER           | BR246-20()()-6V | BR246-80()()-12V | BR246-320()()-28V | BR246-1000()()-48V | BR246AC-()()-115V<br>(Note 3) |
|-----------------------------------|-----------------|------------------|-------------------|--------------------|-------------------------------|
| NOMINAL COIL VOLTAGE              | 6 VDC           | 12 VDC           | 28 VDC            | 48 VDC             | 115 VAC                       |
| MAXIMUM COIL VOLTAGE              | 8 VDC           | 15 VDC           | 29 VDC            | 59 VDC             | 122 VAC                       |
| PULL IN VOLTAGE (MAX @ +125°C)    | 4.5 VDC         | 9 VDC            | 18 VDC            | 36 VDC             | 90 VAC                        |
| DROP OUT VOLTAGE (MAX)            | 1.8 VDC         | 3.5 VDC          | 5.1 VDC           | 11 VDC             | 5 - 30 VAC                    |
| COIL RESISTANCE $\pm 10\%$ @ 25°C | 20 OHMS         | 80 OHMS          | 320 OHMS          | 1000 OHMS          | I = 0.04 AMPS                 |



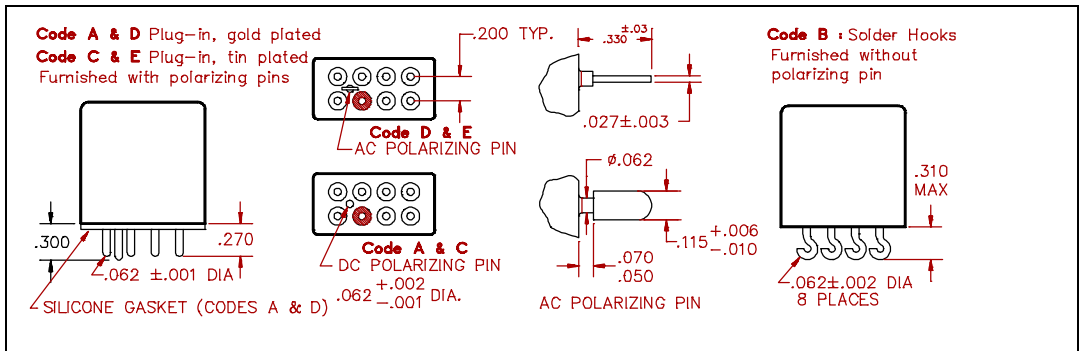
## SCHEMATIC TERMINAL VIEW

NUMBERS FOR REFERENCE  
ONLY



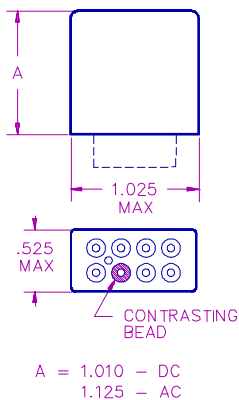
CIRCUIT

## TERMINAL STYLES

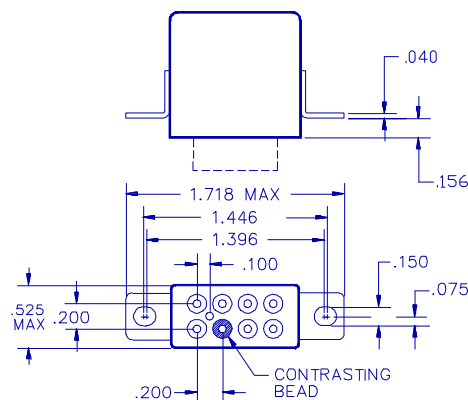


## MOUNTING CODES

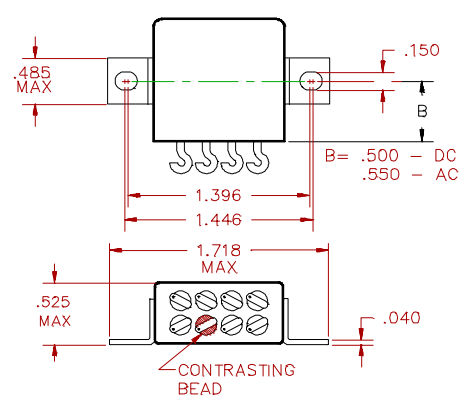
**Code 1** : Plain can



**Code 2** : Side Flanges



**Code 3** : Face Flanges



## GENERAL NOTES

- Unless otherwise specified, all tests made at nominal coil voltages, @ 25°C.
- For special coil variations, switching configurations, terminals styles and mounting types, consult the factory.
- Unless otherwise specified, tolerances on decimal dimensions are  $\pm .010$ ".
- Specifications contained herein are subject to change without notice.



**Microsemi Corporate Headquarters**  
One Enterprise, Aliso Viejo,  
CA 92656 USA

**Within the USA:** +1 (800) 713-4113  
**Outside the USA:** +1 (949) 380-6100  
**Sales:** +1 (949) 380-6136  
**Fax:** +1 (949) 215-4996

**E-mail:** [sales.support@microsemi.com](mailto:sales.support@microsemi.com)

© 2015 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense & security, aerospace and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; security technologies and scalable anti-tamper products; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 3,400 employees globally. Learn more at [www.microsemi.com](http://www.microsemi.com).

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.