

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



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## SPECIFICATIONS

### GENERAL

**Contact Arrangement**..... 2PDT (2 Form C)  
Magnetic Latching

**Weight**..... 1.4 oz approx.  
Designed to meet the requirements of MIL-PRF-83536

### PERFORMANCE

**Contact Rating (Note 1):**

Resistive..... 10 Amps @ 28 VDC or  
115/208V 400 Hz

Inductive..... 8 Amps @ 28 VDC or  
115/208V 400 Hz  
2.5 Amps @ 115/208V 60 Hz

Motor..... 4 Amps @ 28 VDC or  
115/208V 400 Hz  
2 Amps @ 115/208V 60 Hz

Lamp ..... 2 Amps @ 28 VDC or  
115/208V 400 Hz  
1.5 Amps @ 115/208V 60 Hz

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

**Latch/Reset Power** ..... 500 mw approx.

**Latch/Reset Time:**

|  |                |                |
|--|----------------|----------------|
|  | <b>DC Coil</b> | <b>AC Coil</b> |
|  | 10 ms max      | 20 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 Coil      | 1,250 VRMS |
| Coil to Case         | 1,000 VRMS |
| Across Open Contacts | 1,250 VRMS |

80,000 Feet:

|            |          |
|------------|----------|
| All Points | 350 VRMS |
|------------|----------|

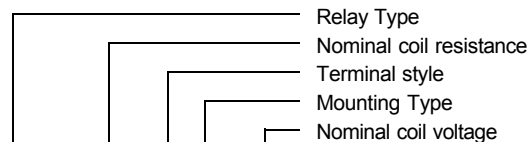
### MIL-PRF-83536/12 QUALIFIED to ER level L

#### Notes

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

## COIL DATA

| MODEL BR247 PART NUMBER            | BR247-38(0)-6V | BR247-150(0)-12V | BR247-600(0)-28V | BR247-1550(0)-48V | BR247AC-(0)-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                      |
| LATCH/RESET VOLTAGE (MAX @ +125°C) | 4.5 VDC        | 9 VDC            | 18 VDC           | 36 VDC            | 90 VAC                       |
| LATCH/RESET VOLTAGE (MAX)          | 3 VDC          | 6 VDC            | 13 VDC           | 24 VDC            | 72 VAC                       |
| COIL RESISTANCE $\pm 10\%$ @ 25°C  | 38 OHMS        | 150 OHMS         | 600 OHMS         | 1550 OHMS         | I = 0.04 AMPS                |

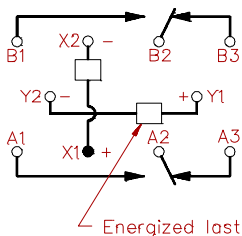


BR247 - 600 A 1 - 28V

## SCHEMATIC

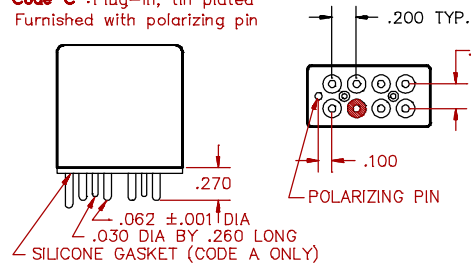
### TERMINAL VIEW

NUMBERS FOR REFERENCE ONLY

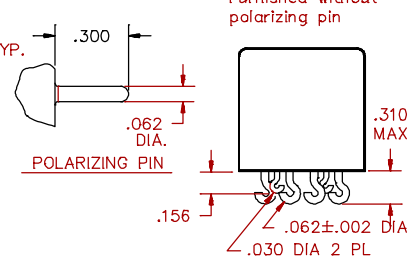


### TERMINAL STYLES

**Code A** : Plug-in, gold plated  
**Code C** : Plug-in, tin plated  
Furnished with polarizing pin

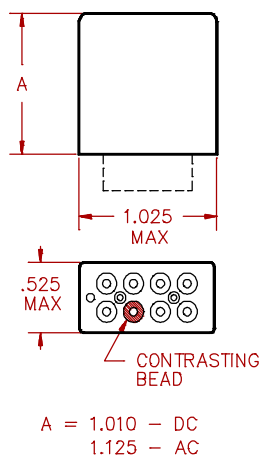


**Code B** : Solder Hooks  
Furnished without polarizing pin

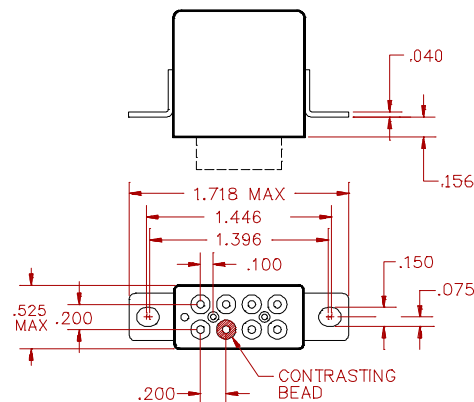


## MOUNTING CODES

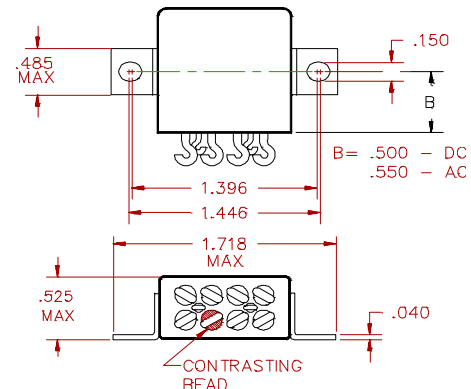
**Code 1** : Plain can



**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.



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