

## Miniature 10 Amps • 4PDT To MIL-R-83536 DC Suppressed Coils

### SPECIFICATIONS

#### GENERAL

**Contact Arrangement** . . . . . 4PDT (4 Form C)  
**Weight** . . . . . 3.0 oz approx.  
 Designed to meet the requirements of MIL-R-6106

#### PERFORMANCE

##### Contact Rating (Note 1):

Resistive . . . . . 10 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 Inductive . . . . . 6 Amps @ 115/208V 400 Hz  
 (Case Grounded)  
 4 Amps @ 115/208V 60 Hz  
 (Case Grounded)  
 Motor . . . . . 4 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 3 Amps @ 115/208V 60 Hz  
 (Case Grounded)  
 Lamp . . . . . 2 Amps @ 28 VDC or  
 115/208V 400 Hz  
 (Case Grounded)  
 1.5 Amps @ 115/208V 60 Hz  
 (Case Grounded)

**Life** . . . . . 100,000 operations minimum @ rated  
 resistive load, 125°C  
**Pull In Power** . . . . . 500 mw approx.

**Operate/Release Time:** **DC Coil**  
 15 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 . . . . . 150 mv max @ 10 Amps  
 and 6 VDC  
 After Life . . . . . 175 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-R-83536/16 QUALIFIED to ER level M

#### 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.

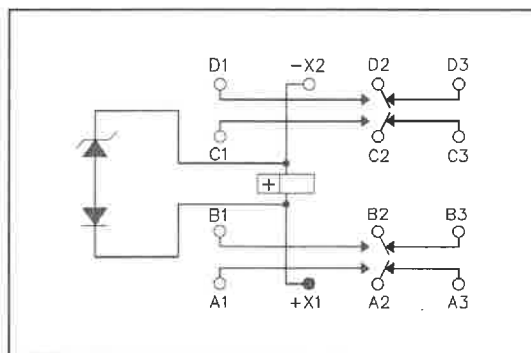
## COIL DATA:

MODEL BR230D PART NUMBER	BR230D-20()-6V	BR230D-78()-12V	BR230D-290()-28V	BR230D-890()-48V
NOMINAL COIL VOLTAGE	6 VDC	12 VDC	28 VDC	48 VDC
MAXIMUM COIL VOLTAGE	8 VDC	15 VDC	29 VDC	59 VDC
PULL IN VOLTAGE (MAX @ +125°C)	4.5 VDC	9 VDC	18 VDC	36 VDC
DROP OUT VOLTAGE (MAX)	1.8 VDC	3.5 VDC	5.1 VDC	11 VDC
MAXIMUM BACK EMF	9 VDC	18 VDC	42 VDC	72 VDC
COIL RESISTANCE $\pm 10\%$ @ 25°C	20 OHMS	78 OHMS	290 OHMS	890 OHMS

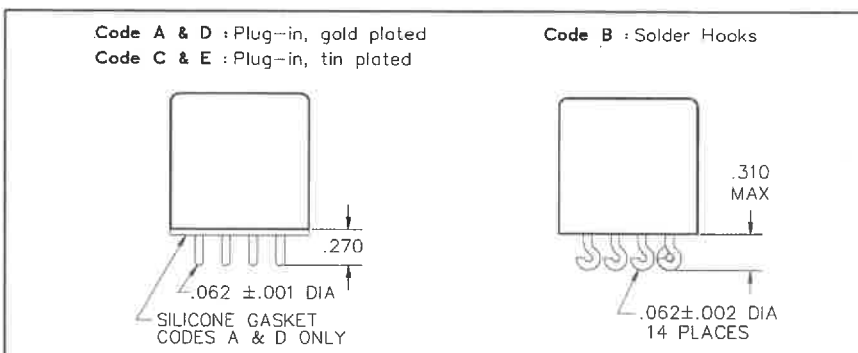
BR230D - 290 C 2 - 28V

Relay Type  
 Nominal coil resistance  
 Terminal style  
 Mounting Type  
 Nominal coil voltage

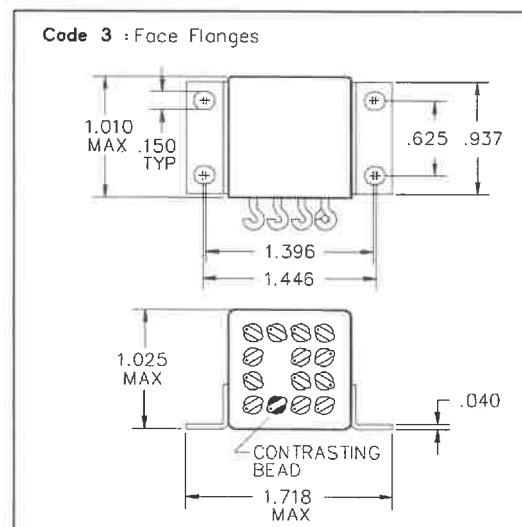
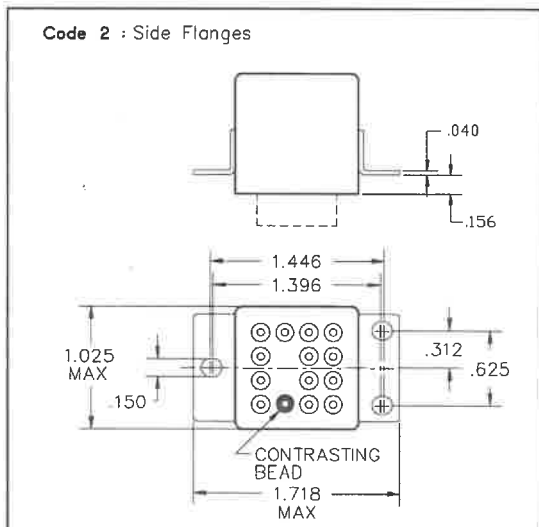
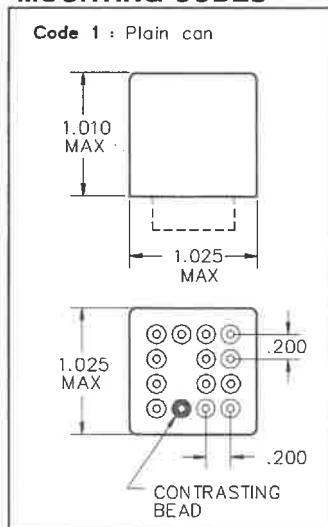
## SCHEMATIC TERMINAL VIEW



## TERMINAL STYLES



## MOUNTING CODES



## 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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## Microchip:

[BR230D-290B2-28V-021M](#) [BR230D-290B2-28V](#) [BR230D-290C2-28V](#) [BR230D-78A2-12V](#) [BR230D-890A1-48V-028L](#)  
[BR230D-290C2-28V-020M](#) [BR230D-290C3-28V-023M](#) [BR230D-78A2-12V-014M](#) [BR230D-78B2-12V](#) [BR230D-78B3-12V-016M](#) [BR230D-78C1-12V](#) [BR230D-290B3-28V-024L](#) [BR230D-290B3-28V-024M](#) [BR230D-290C1-28V](#)  
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