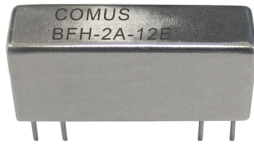


**Part Number: BFH Series**  
**Multi-Pole Instrumentation Reed Relays - 2 Form A, 3 Form A, and 2 Form C**  
**Product Data Sheet**

## PICTURE

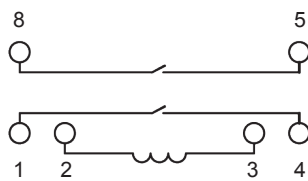


## FEATURES

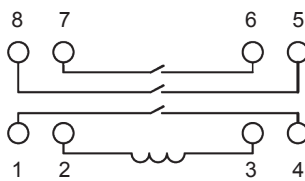
- Multi-pole designs 2 Form A, 3 Form A, and 2 Form C
- High Reliability Instrumentation Grade reed switch with sputtered Ruthenium Form A contacts
- Optional Electrostatic or Coaxial Shield (BFH-2A Only)
- High Insulation Resistance:  $10^{12} \Omega$  MIN (Form A)
- Metal Cover (reduces magnetic interaction)
- Industry Standard Packages
- Custom Designs Available

**✓RoHS Compliant**

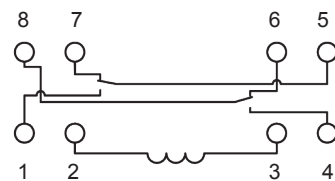
## CIRCUIT DIAGRAM (Top View)



BFH-2A



BFH-3A



BFH-2C

**NOTE:** Model BFH-2A, pin #6 is tied to optional electrostatic shield, pins #6 & #7 are tied to optional coaxial shield.

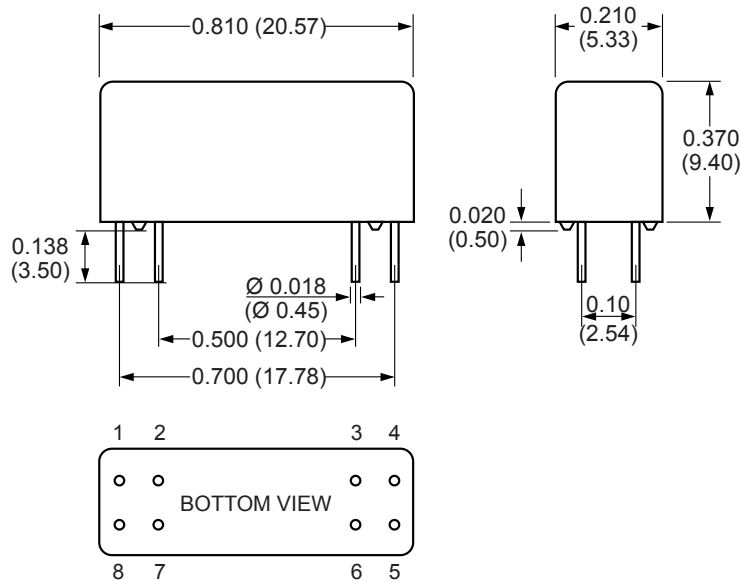
## ORDERING INFORMATION

| Series | Form | Coil | Options                                |
|--------|------|------|--|
| BFH    | 2A   | 05   | E = Electrostatic Shield (BFH-2A Only) |
|        | 3A   |      | C = Coaxial Shield (BFH-2A Only)       |
|        | 2C   | 12   |  |

**Part Number Example:** BFH-XX-XXX

BFH-2A-12E = 2 form A, 12 Volt Coil with Electrostatic Shield

## DIMENSIONS



Drawings not to scale.  
 All dimensions in inches (mm) nominal.

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**Part Number: BFH Series**  
**Multi-Pole Instrumentation Reed Relays - 2 Form A, 3 Form A, and 2 Form C**  
**Product Data Sheet**

| COIL DATA-STANDARD TYPE (at 20 °C) |                               |                             |  |  |                         |
|------------------------------------|-------------------------------|-----------------------------|--|--|-------------------------|
| PART NUMBER                        | NOMINAL VOLTAGE<br>DC±10% [V] | COIL RESISTANCE<br>±10% (Ω) | MUST OPERATE<br>VOLTAGE MAX<br>[V] at 20°C | MUST RELEASE<br>VOLTAGE MIN<br>[V] at 20°C | MAX COIL<br>VOLTAGE [V] |
| BFH-2A<br>BFH-3A<br>BFH-2C         | 5                             | 175                         | 3.8  | 0.4  | 7                       |
|                                    | 12                            | 1000                        | 9.0  | 1.0  | 16                      |

| CONTACT RATING        |         |         |         |
|-----------------------|---------|---------|---------|
| RELAY MODEL           | 2A      | 3A      | 2C      |
| Max Contact Rating    | 10 W    | 10 W    | 5 W     |
| Max Switching Voltage | 200 VDC | 200 VDC | 100 VDC |
| Max Switching Current | 0.5 A   | 0.5 A   | 0.25 A  |
| Max Carry Current     | 1.5 A   | 1.5 A   | 1.0 A   |

| SPECIFICATIONS  |                           |                           |                           |
|---|---------------------------|---------------------------|---------------------------|
| RELAY MODEL   | 2A                        | 3A                        | 2C                        |
| Static Contact Resistance (Initial)                                       | 150 mΩ                    | 150 mΩ                    | 200 mΩ                    |
| Dielectric Strength Between Contacts (Min)                                | 250 VDC                   | 250 VDC                   | 200 VDC                   |
| Dielectric Strength Contacts to Shield (Min)                              | 1000 VDC                  | N/A                       | N/A                       |
| Dielectric Strength Contacts / Shield to Coil (Min)                       | 1000 VDC                  | 1000 VDC                  | 1000 VDC                  |
| Insulation Resistance Between all Isolated pins at 100V 25°C, 40%RH (Min) | 10 <sup>12</sup>          | 10 <sup>12</sup>          | 10 <sup>9</sup>           |
| Capacitance - Typical No Shield   | 0.8 pF                    | 0.8 pF                    | 2.0 pF                    |
| Capacitance - Typical Shield Guarding                                     | 0.2 pF                    | N/A                       | N/A                       |
| Operate Time - Including Bounce - Typical                                 | 0.5 mS                    | 0.5 mS                    | 1.5 mS                    |
| Release Time - Typical  | 0.15 mS                   | 0.15 mS                   | 2.0 mS                    |
| Vibration   |                           | 20G                       |                           |
| Shock   |                           | 50G                       |                           |
| Operating Temperature   |                           | -20°C to +85°C            |                           |
| Storage Temperature   |                           | -40°C to +100°C           |                           |
| Life Expectancy (Signal Level 1.0V, 10mA) (Typical)                       | 500 x 10 <sup>6</sup> Ops | 500 x 10 <sup>6</sup> Ops | 100 x 10 <sup>6</sup> Ops |

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