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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email \& Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, \#122 Zhenhua RD., Futian, Shenzhen, China

Part Number: BF/BFS Series
1A, 1C Instrumentation Reed Relays
Product Data Sheet

PICTURE


## VRoHS Compliant

## FEATURES

- High Reliability Instrumentation Grade ( $\overline{\square 10} \equiv^{\circ}$ ) reed switch with sputtered Ruthenium contacts
- 1 Form A and 1 Form C contacts
- Industry Standard Footprints (alternate pin-outs available)
- Ideal for Test and Instrumentation applications
- Hermetically sealed contacts for long life
- Optional Electrostatic or Coaxial Shield ( $50 \Omega$ ) (Form A only)
- High Insulation Resistance: $10^{12} \Omega$ MIN (Form A)
- Metal Cover (reduces magnetic interaction)
CIRCUIT DIAGRAM (Top View)

ORDERING INFORMATION

| Series | Form | Coil | Options (1 Form A model only) |
| :--- | :---: | ---: | :--- |
| BFS | 1A | 05 <br> 12 | E = E/S (Tied to pin \#7) <br> C Coaxial (Tied to pins \#6 \& \#7) |
| BF | 1 1C | 05 <br> 12 |  |

Part Number Example: BFS-1A-XXX BFS-1A-05E $=1$ form A, 5 Volt Coil with E/S Shield BF-1C-XX BF-1C-05 $=1$ form C, 5 Volt Coil
DIMENSIONS

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| BFS COIL DATA-STANDARD TYPE 1 FORM A (at 20 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |


| BF COIL DATA-STANDARD TYPE 1 FORM C (at 20 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NOMINAL COIL <br> VOLTAGE (VDC) | COIL RESISTANCE <br> $\pm 10 \%(\Omega)$ | MAX OPERATE <br> VOLTAGE (VDC) | MIN RELEASE <br> VOLTAGE (VDC) | MAX COIL <br> VOLTAGE (VDC) |  |
| 5 | 230 | 3.8 | 0.4 | 7 |  |
| 12 | 1500 | 9 | 1 | 16 |  |


| CONTACT RATING |  |  |
| :---: | :---: | :---: |
| RELAY MODEL | 1A (BFS) | 1 C (BF) |
| Max Switching Power | 10 W | 5 W |
| Max Switching Voltage | 200 VDC | 150 VDC |
| Max Switching Current | 0.5 A | 0.25 A |
| Max Carry Current | 1.5 A | 1 A |
| SPECIFICATIONS |  |  |
| RELAY MODEL | 1A (BFS) | 1 C (BF) |
| Contact Resistance (Initial) | $100 \mathrm{~m} \Omega$ | $150 \mathrm{~m} \Omega$ |
| Operate Time - including Bounce (at Nominal Voltage) (Typical) | 0.5 ms | 1.0 ms |
| Release Time (Typical) | 0.1 ms | 2.0 ms |
| Insulation Resistance Between all Isolated pins ( $+20^{\circ} \mathrm{C}, 40 \% \mathrm{RH}, 100 \mathrm{~V}$ ) (MIN) | $10^{12} \Omega$ | $10^{9} \Omega$ |
| Dielectric Strength: Across Contacts (DC/Peak AC Resistive) (MIN) | 250 V | 200 V |
| Dielectric Strength: Contacts to Coil (DC/Peak AC Resistive) (MIN) | 1500 V | 1500 V |
| Dielectric Strength: Contacts/Shield to Coil (DC/Peak AC Resistive) (MIN) | 1500 V | N/A |
| Capacitance Across Open Contacts: Shield Floating/Guarding (Typical) | 1.0 / 0.3 pF | 2.0 pF |
| Vibration | 20G |  |
| Shock | 50G |  |
| Operating Temperature | $-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |  |
| Storage Temperature | $-35^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$ |  |
| Life Expectancy (1.0V, 10mA Load) (Typical) | $500 \times 10^{6}$ Ops | $100 \times 10^{6}$ Ops |

