

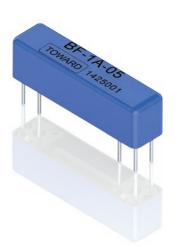




BF Series 1a, 1c Reed Relays

Features

- High reliability reed relays.
- High Insulation Resistance.
- High speed switching compared to electromechanical relays.
- Hermetically sealed contacts for long life.
- Optional electrostatic shield for reducing capacitive coupling.
- Optional coaxial shield for 50 Ω impedance and switching of fast rise time digital pulses.
- RoHS compliant.



Order Code

BF- XX-XX X X

a: Contanct Form: 1A=1 Form A, 1C=1 Form C

b: Nominal Coil Voltage: 05=5 VDC, 12=12 VDC

c: Nil=No Electrostatic Shield, E=Electrostatic Shield, C=Coaxial Shield

d: Nil=Standard Type, Y=Special Pin Assignment

Coil Date-Standard Type (at 20°C)

| Part Number | Nominal Voltage DC ± 10% [V] | Coil Resistance ± 10% [ohm] | Nominal Current [mA] | Must Release Voltage MIN. [V] at 20°C | Must Operate Voltage MAX. [V] at 20°C |
|-------------|------------------------------------|--------------------------------|----------------------|---|---|
| BF-1A | 5 | 370 | 13.5 | 0.4 | 3.8 |
| | 12 | 1500 | 8 | 1.0 | 9.0 |
| BF-1C | 5 | 230 | 22 | 0.4 | 3.8 |
| | 12 | 1500 | 8 | 1.0 | 9.0 |

Contact Specifications

| Contact Form | 1 Form A | 1 Form C |
|---------------------------------|---------------|----------|
| Contact Rating | 10W | 3W |
| Max. Switching Voltage | 200V | 100V |
| Max. Switching Current | 0.5A | 0.25A |
| Max. Carry Current | 1.0A | 0.5A |
| Max. Static Contact Resistance | 100mΩ | 150mΩ |
| Max. Dynamic Contact Resistance | 200m Ω | 200mΩ |



Electrical Specifications

| Contact Form | | 1 Form A | 1 Form C |
|---|---|--------------------|--------------------|
| Breakdown Voltage | Between contacts contact to shield contact / shield to coil | 250VDC | 200VDC |
| | | 250VDC | N/A |
| | | 1500VDC | 1500VDC |
| Insulation Resistance | | 10 ¹² Ω | 10 ¹¹ Ω |
| Capacitance | | 0.9pF | 0.9pF |
| Operate Time Including bounce - Typical | | 0.5mS | 1.0mS |
| Release Time - Typical | | 0.1mS | 2.0mS |

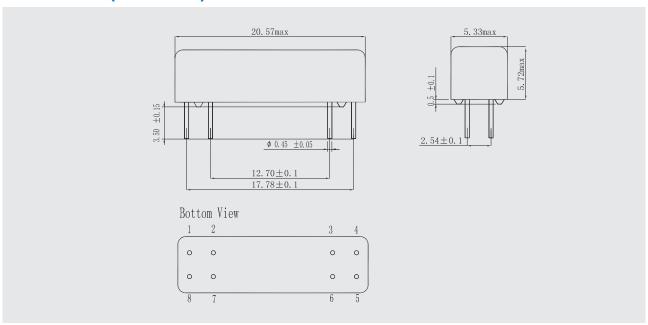
Mechanical Specifications

| Vibration (0 to 2KHz 1.5mm) | 20G |
|------------------------------|-----|
| shock (11mS 1/2 Sin Wave) | 50G |

Environmental

| Operating Temperature | -25°C ~+85°C | | |
|-------------------------------|-------------------|-------------------|--|
| Storage Temperature | -35°C ~+100°C | | |
| Life Expectancy (1.0VDC 10mA) | 5X10 ⁸ | 1X10 ⁸ | |

Dimensions (Unit:mm)



Wiring Diagrams (Top View)

