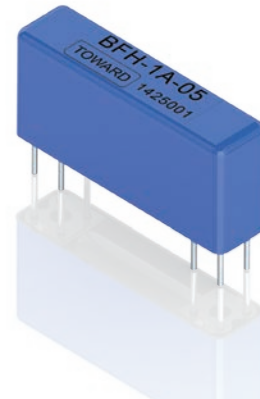


# BFH Series

## 2a, 3a, 2c 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 50Ω impedance and switching of fast rise time digital pulses.
- RoHS compliant.



### Order Code

BFH-  $\frac{XX-XX}{a} \frac{X}{b} \frac{X}{c}$

a : Contact Form : 2A=2 Form A, 3A=3 Form A, 2C=2 Form C, 1C=1 Form C  
 b : Nominal Coil Voltage : 05=5VDC, 12=12VDC  
 c : Nil=No Electrostatic Shield, E=Electrostatic Shield, C=Coaxial Shield  
 (N/A on Model BFH-3A,BFH-2C)

### Coil Data-Standard Type (at 20°C)

Part Number	Nominal Voltage DC $\pm 10\%$ [V]	Coil Resistance $\pm 10\%$ [ohm]	Nominal Current [mA]	Must Release Voltage MIN. [V] at 20°C	Must Operate Voltage MAX. [V] at 20°C
BFH-1C	5	230	21.7	0.4	3.8
BFH-2A/3A/2C	5	175	28.5	0.4	3.8
BFH-2A/3A/1C/2C	12	1000	12	1.0	9.0

### Contact Specifications

Contact Form	2 Form A	3 Form A	2 Form C	1 Form C
Contact Rating	10W	10W	3W	10W
Max. Switching Voltage	200V	200V	100V	200V
Max. Switching Current	0.5A	0.5A	0.25A	0.5A
Max. Carry Current	1.5A	1.5A	0.5A	1.5A
Max. Static Contact Resistance	150mΩ	150mΩ	200mΩ	150mΩ
Max. Dynamic Contact Resistance	200mΩ	200mΩ	250mΩ	200mΩ



### Electrical Specifications

Contact Form	2 Form A	3 Form A	2 Form C	1 Form C
Breakdown Voltage Between contacts contact to shield contact / shield to coil	250VDC	250VDC	200VDC	250VDC
	1000VDC	N/A	N/A	1000VDC
Insulation Resistance	10 <sup>12</sup> Ω	10 <sup>12</sup> Ω	10 <sup>9</sup> Ω	10 <sup>12</sup> Ω
Capacitance	0.8pF	0.8pF	2.0pF	1.7pF
Operate Time Including bounce - Typical	0.5mS	0.5mS	1.5mS	0.5mS
Release Time - Typical	0.15mS	0.15mS	2.0mS	0.5mS

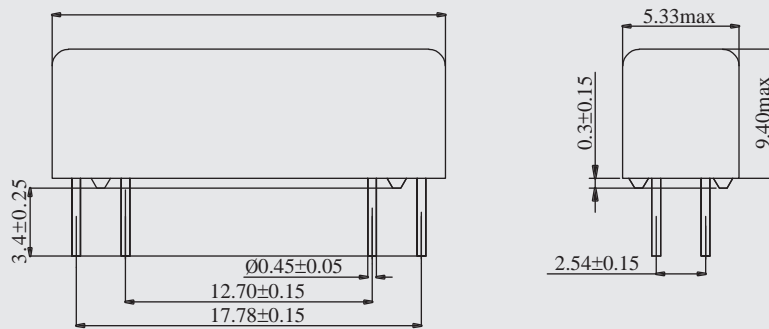
### Mechanical Specifications

Vibration (0 to 2KHz 1.5mm )	20G
shock (11mS 1/2 Sin Wave)	30G

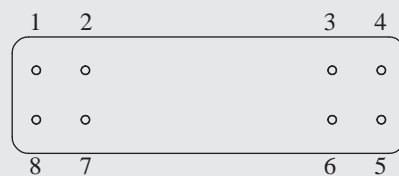
### Environmental

Operating Temp	-25°C ~+85°C			
Storage Temp	-35°C ~+100°C			
Life Expectancy (1.0VDC 10mA)	5X10 <sup>8</sup>	5X10 <sup>8</sup>	1X10 <sup>8</sup>	5X10 <sup>8</sup>

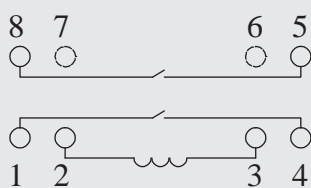
### Dimensions (Unit : mm)



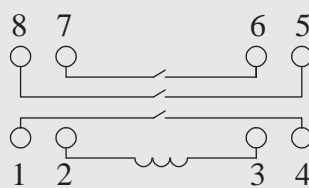
Bottom View



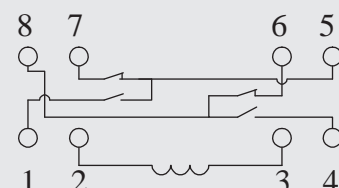
### Wiring Diagrams (Top View)



BFH-2A



BFH-3A



BFH-2C

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