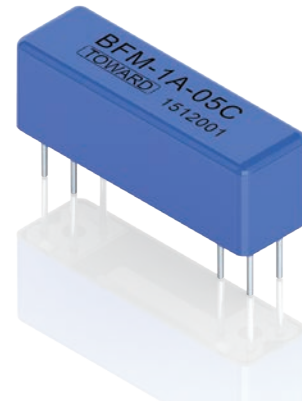


BFM Series

1a, 1c, 1m Reed Relay and Wet Reed Relay

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

BFM- XX-XX X X
a b c d

- a : Contact Form : 1A=1 Form A, 1C=1 Form C, 1M=1 Form A Hg Wet
 b : Nominal Coil Voltage : 05=5VDC, 12=12VDC
 c : Nil=No Electrostatic Shield, E=Electrostatic Shield, C=Coaxial Shield
 d : Hg Wet : Nil=Position Sensitive, N=Non-Position Sensitive

Coil Data-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
BFM-1A	5	370	13.5	0.4	3.8
	12	1500	8	1.0	9.0
BFM-1C	5	230	22	0.4	3.8
	12	1500	8	1.0	9.0
BFM-1M	5	75	67	0.4	3.8
	12	250	48	1.0	9.0

Contact Specifications

Contact Form	1 Form A	1 Form C	1 Form A - M	1 Form A - MN
Contact Rating	10W	3W	50W	50W
Max. Switching Voltage	200V	150V	1500V	500V
Max. Switching Current	0.5A	0.25A	2.0A	2.0A
Max. Carry Current	1.5A	1.0A	3.0A	2.0A
Max. Static Contact Resistance	100mΩ	150mΩ	75mΩ	75mΩ
Max. Dynamic Contact Resistance	200mΩ	200mΩ	100mΩ	100mΩ



Electrical Specifications

Contact Form	1 Form A	1 FormC	1 Form A - M	1 Form A - MN
Breakdown Voltage Between contacts contact to shield contact / shield to coil	350VDC	200VDC	2000VDC	1500VDC
	350VDC	200VDC	1000VDC	1000VDC
	1500VDC	1500VDC	1500VDC	1500VDC
Insulation Resistance	$10^{12}\Omega$	$10^{11}\Omega$	$10^{10}\Omega$	$10^{10}\Omega$
Capacitance	1.0pF	2.0pF	1.4pF	1.4pF
Operate Time Including bounce - Typical	0.5mS	1.0mS	2.0mS	2.0mS
Release Time	0.1mS	2.0mS	1.5mS	1.5mS

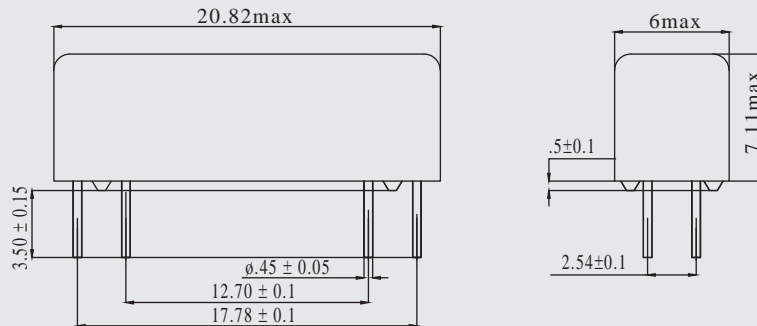
Mechanical Specifications

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

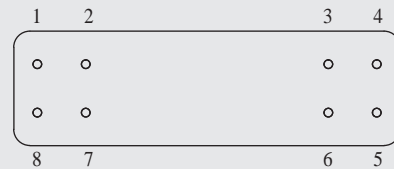
Environmental

Operating Temp	-25°C ~+85°C			
Storage Temp	-35°C ~+100°C			
Life Expectancy (1.0VDC 10mA)	5X10 ⁸	1X10 ⁸	1X10 ⁹	1X10 ⁹

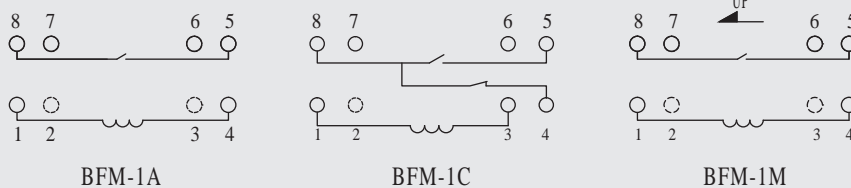
Dimensions (Unit : mm)



Bottom View



Wiring Diagrams (Top View)



Notes: Model BFM-1A, BFM-1C, BFM-1M; pin #7 is tied to optional electrostatic shield, pin #6 & #7 are tied to optional coaxial shield.