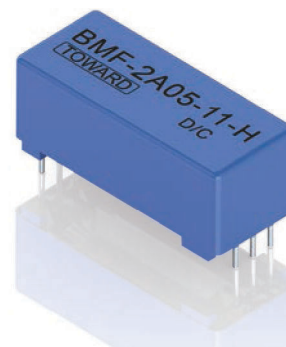


# BMF Series

## Low Thermal EMF Reed Relay

### Features

- Low power coils to ensure low thermal EMF.
- High Insulation Resistance,  $10^{12}\Omega$  minimum.
- Control / Signal isolation of 1500VDC.
- High reliability, hermetically sealed contacts.
- Magnetic shielding options.
- RoHS compliant.



### Order Code

BMF- XX XX-X X-H  
a b c d e

a : Contact Form : 1A=1 Form A, 2A=2 Form A  
b : Nominal Coil Voltage : 05=5VDC, 12=12VDC  
c : Thermal EMF rating : 1=  $< 5\mu V$ , 2=  $< 3\mu V$ ,  
3=  $< 1\mu V$ , 4=  $< 0.5\mu V$   
d : Nil=Standard type, 1=Electrostatic Shield  
e : Nil=Standard type, H=High voltage

### 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
BMF	5	350	14.3	0.4	3.8
	12	2000	6	1.0	9.0
BMF-H	5	250	20	0.4	3.8
	12	1500	8	1.0	9.0

### Model Number

Relay model	BMF	BMF	BMF-H	BMF-H
Contact Form	1 Form A	2 Form A	1 Form A	2 Form A
Thermal EMF options Measured after 5 minutes at nominal coil voltage (Refer to reed relay technical section for details)	Individual $< 5\mu V$ $< 3\mu V$ $< 1\mu V$ $< 0.5\mu V$	Differential $< 5\mu V$ $< 3\mu V$ $< 1\mu V$ $< 0.5\mu V$	Individual $< 5\mu V$ $< 3\mu V$	Differential $< 5\mu V$ $< 3\mu V$

### Contact Specifications

Contact Rating	10W	10W	10W	10W
Max.Switching Voltage	200V	200V	500V	500V
Max.Switching Current	0.5A	0.5A	0.5A	0.5A
Max.Carry Current	1.5A	1.5A	2.0A	2.0A
Max.Static Contact Resistance	200m $\Omega$	100m $\Omega$	200m $\Omega$	100m $\Omega$
Max.Dynamic Contact Resistance	300m $\Omega$	200m $\Omega$	300m $\Omega$	200m $\Omega$



## Electrical Specifications

Relay model	BMF	BMF	BMF-H	BMF-H
Breakdown Voltage Between contacts contact to shield contact / shield to coil	700VDC	350VDC	1500VDC	1500VDC
	1000VDC	1000VDC	1000VDC	1000VDC
	1500VDC	1500VDC	1500VDC	1500VDC
Insulation Resistance	$10^{12}\Omega$	$10^{12}\Omega$	$10^{12}\Omega$	$10^{12}\Omega$
Capacitance-Typical No shield	3.0pF	1.7pF	3.0pF	1.7pF
Across open contacts Shield gurdung	1.9pF	0.2pF	1.9pF	0.2pF
Operate Time Including bounce-Typical	0.75mS	0.75mS	1.0mS	1.0mS
Release Time	0.1mS	0.1mS	0.2mS	0.2mS

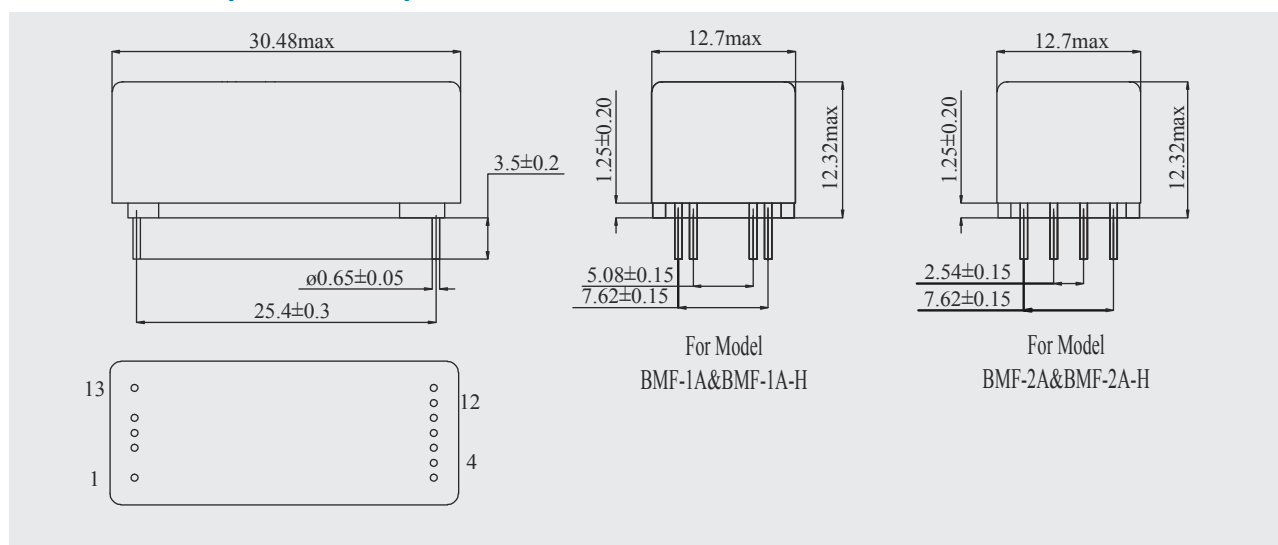
## Mechanical Specifications

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 <sup>8</sup>	1X10 <sup>8</sup>	1X10 <sup>8</sup>	1X10 <sup>8</sup>

## Dimensions (Unit : mm)



## Wiring Diagrams (Top View)

