

**MSIP Series**
**Reed Relay**
**1 Feature**

- ◆ Molded thermoset body on integral lead frame design
- ◆ Optional coil suppression diode protects coil drive circuits
- ◆ High Insulation resistance, up to  $10^{12}\Omega$
- ◆ High speed switch, high reliability, long life sealed contact
- ◆ Magnetic shield-reduces interaction
- ◆ Custom Design, conforming to RoHS directive


**2 Performance Data**

Paramenter		Units	Value
Relay Model		/	MSIP-1A□
Contact Rating		W	10
Max.Switching Voltage (Max DC/Peak AC)		V	250
Max.Switching Current (Max DC/Peak AC)		A	0.5
Max.Carry Current	at 60°C	A	1.0
Contact Resistance		mΩ	100
Dielectric Strength (static)	Between contact	VDC	250
	Contact/shield to coil	V	1500
Insulation Resistance		Ω	$10^{12}$
Operate Time		ms	0.5
Release Time		ms	0.3
Vibration(0~2000Hz)		G	20
Shock(11ms, 1/2 sine)		G	50
Operating Temp		°C	-20~+70
Storage Temp		°C	-35~+105
Life Expectancy		Ops	$5 \times 10^7$ (at 10VDC-10mA)
Outline Dimensions		/	Reference outline drawing

**3 Coil Parameters**

Model	Nominal Voltage (VDC)	Pickup Voltage Max.(VDC)	Dropout Voltage Min.(VDC)	Operate Voltage Max.(VDC)	Coil Resistance ( $\pm 10\% \Omega$ at 20°C)
MSIP-1A□	5	4	0.4	21	500
	12	9	1	30	1000

地址：上海市普陀区中山北路 3000 号长城大厦 1007

ADDRESS:1007, Great Wall Building, 3000 Zhongshan North Road, Putuo District, Shanghai

邮政编码：200063

POSTAL CODE:200063

#### 4 Example of order marking

**MSIP**  -   - (XXX)  
①    ②    ③    ④    ⑤

47 Product model: MSIP

48 Contact form: 1A: 1 Form A

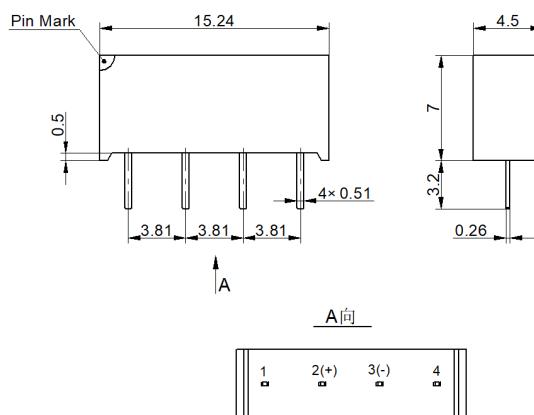
49 Nominal coil voltage: 05: 5VDC<sup>(1)</sup>、12: 12VDC、24: 24VDC

50 Features: Blank: Standard、B: With Diode、S: With magnetic shield、BS: With Diode and magnetic shield

51 Special code: Customer special requirement

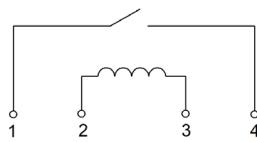
Note: (1) 5V DC is high resistance specification, suffix with “-HR”.

#### 5 Outline drawing

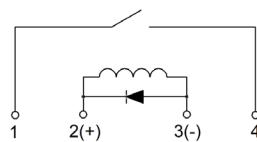


#### 6 Wiring diagram

1)



2)



#### 7 Precautions for use

- ※ Avoid installing relays where rain falls, or where there is a strong magnetic field, or near an object with thermal radiation.
- ※ Switching inductive or capacitive load systems will produce peak voltage or current, it is recommended to use protective circuit, otherwise, may cause relay damage.
- ※ Avoid excessive packing density in use which may affect the electrical characteristics of the relay.
- ※ Mechanical impact strength is too large, will cause the relay to use the fault.
- ※ When the relay is used for wave soldering, the maximum temperature is 260°C and the time does not exceed 5s.

#### **⚠ Statement:**

The document is for customer reference only. Specifications and parameters may be changed due to product improvement. For the specific parameters and performance of each product, please refer to the specifications and samples provided by Mirelay without further notice.

Relay performance parameters in different application areas are different, so customers should choose the appropriate products according to the specific conditions of use, if in doubt, please contact Shanghai MiRelay Electronics Co.,Ltd. for more technical support.

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