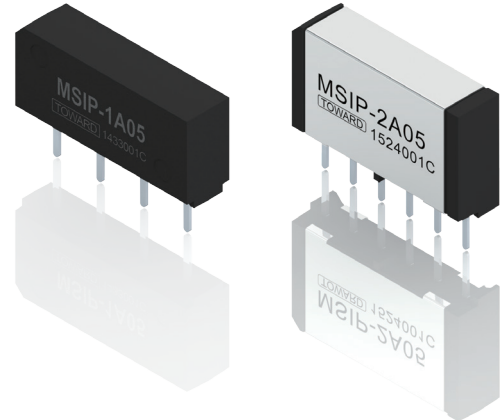


# MSIP Series

## Mini Size 1a, 2a Reed Relay

### Features

- Magnetic shield-reduces interaction.
- Optional coil suppression diode protects coil drive circuits.
- High Insulation Resistance.
- High speed switching.
- High board density and long life.
- Molded thermoset body on integral lead frame design.
- High reliability,hermetically sealed contacts for long life.



### Order Code

MSIP- XX-XX X X  
a b c d

a : Contact Form : 1A=1FormA, 2A=2FormA  
 b : Nominal Coil Voltage : 05=5VDC, 12=12VDC  
 c : Nil=Standard type, D=Diode, S=Magnetic shield,  
 N=Diode+Magnetic shield  
 d : Special code:Nil=Standard, A-Z=Special

### 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
MSIP-1A	5	500	10	0.4	4.0
	12	1000	12	1.0	9.0
MSIP-2A	5	375	13	0.4	4.0
	12	750	16	1.0	9.0

### Contact Specifications

Contact Form	1 Form A	2 Form A
Contact Rating	10 W	10 W
Max. Switching Voltage	200 V	200 V
Max. Switching Current	0.5 A	0.5 A
Max. Carry Current	1.5 A	1.2 A
Max. Static Contact Resistance	125 mΩ	140 mΩ
Max. Dynamic Contact Resistance	150 mΩ	200 mΩ



**Electrical Specifications**

Contact Form	1 Form A	2 Form A	
Breakdown Voltage :	Between contacts	200 VDC	200 VDC
	Contact to coil	1500 VDC	1500 VDC
Insulation Resistance	$10^{12} \Omega$	$10^{12} \Omega$	
Capacitance - Typical Across open contacts	0.1 pF	1.0 pF	
Open contact to coil	2.0 pF	1.4 pF	
Operate Time Including bounce - Typical	0.5 mS	0.75 mS	
Release Time	0.3 mS	0.5 mS	

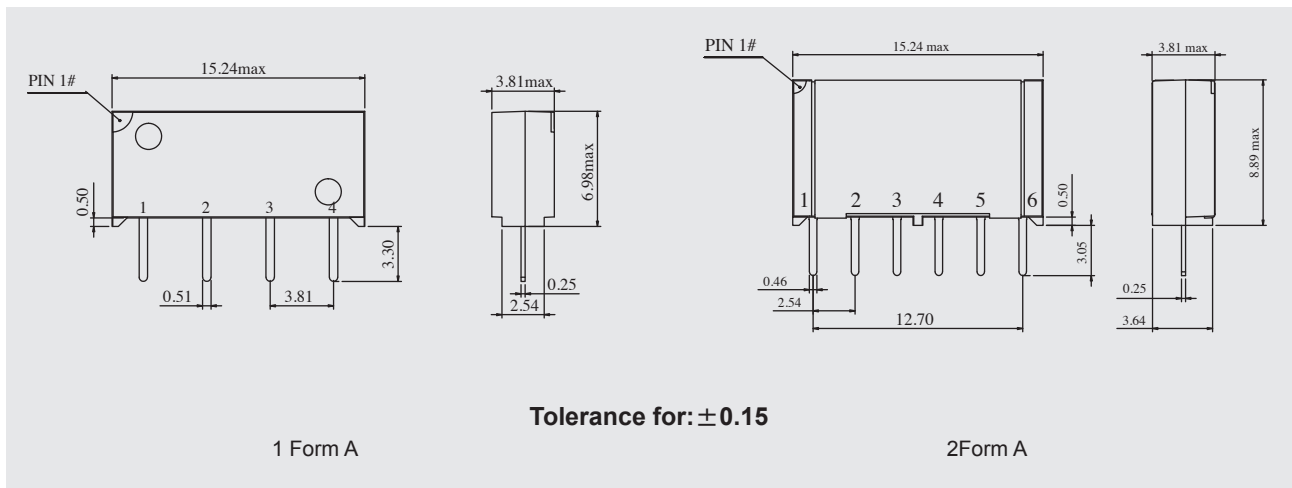
**Mechanical Specifications**

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

**Environmental**

Operating Temp	-20°C ~+85°C	
Storage Temp	-35°C ~+100°C	
Life Expectancy(1.0VDC 10mA)	5X10 <sup>8</sup>	5X10 <sup>8</sup>

**Dimensions (Unit : mm)**



**Wiring Diagrams (Bottom View)**

