MICRO SIL
Reed Relays

DESCRIPTION

MICRO SIL is a compact version of SIL Reed Relay Serie using only 15.2 x 3.81 mm of board space which is half the standard SIL requirement.

APPLICATIONS

- ATE systems
- Measurement equipment
- Telecommunications
- Security systems

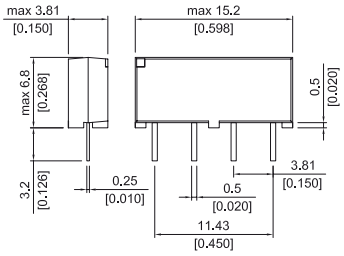
FEATURES

- Contact Form 1A and 2A
- Internal magnetic shield
- New rugged molded design
- Diode option available
- High coil resistance option

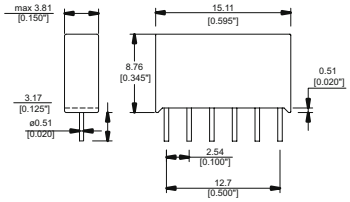
DIMENSIONS

All dimensions in mm [inches]

Form 1A



Form 2A



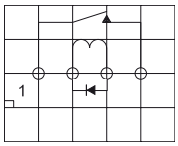
PIN OUT

View from top of component

Form 1A

Pitch grid: 3.81 mm [0.15"]
Pin #2 must be positive when internal diode protection is present.

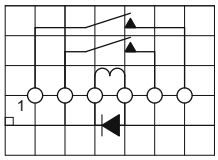
75



Form 2A

Pitch grid: 2.54 mm [0.1"]
Pin #3 must be positive when internal diode protection is present.

78



• Notch in case denotes pin #1

ORDER INFORMATION

Relay Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Options	High Resistance Version
MS -	**XX -**	**1A**	**87**	**75**	**X**	**XX**
MS -	**XX -**	**2A**	**87**	**78**	**X**	
Options	05, 12				L, D	HR

Part Number Example

MS12 - 1A87 - 75L

12 is the nominal voltage
87 is the switch model
L is the option

OPTIONS

L = No diode (with internal shield)
D = With diode and internal magnetic shield
HR = High resistance version (5 Volt option only)

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 87 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Units**
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10	W
Switching Voltage	DC or peak AC			200	V
Switching Current	DC or peak AC			0.5	A
Carry Current	DC or peak AC			1.0	A
Static Contact Resistance	w/ 0.5 V & 50mA			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200	mΩ
Insulation Resistance across Contacts	Across Contact Coil - Contact	10^{10} 10^{13}	10^{12} 10^{14}		Ω
Breakdown Voltage across Contact	Across Contact Coil - Contact	225 1500			VDC
Operation Time incl. Bounce	Nominal voltage			0.5	ms
Release Time	with no coil suppression			0.1	ms
Capacitance	Across Contact Coil - Contact		0.2 2.0		pF
Life Expectance					
Switch Voltage 5V - 10 mA	DC <10 pF stray cap.		1000		10^6 Cycles
For other load requirements, see test section on Page 112.					
Environmental Data					
Shock Resistance	1/2 sinus wave duration 11 ms			50	g
Vibration Resistance	From 10 - 2000 Hz			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-35		95	°C
Soldering Temperature	5 sec.			260	°C

COIL DATA

Contact Form	Switch Model	Coil Voltage		Coil Resistance			Pull-in Voltage	Drop-out Voltage	Nominal Coil Power
All Data at 20 °C *		VDC		Ω			VDC	VDC	mW
		Nom.	Max.	Min.	Typ.	Max.	Max.	Min.	Typ.
1A	87	5	7.5	250	280	310	3.5	0.75	90
		5 HR	7.5	450	500	550	3.5	0.75	50
		12	18	630	700	770	8.4	1.8	205
2A	87	5	7.5	338	375	413	3.75	0.5	67

* The pull-in / drop-out voltages and coil resistance will change at the rate 0,4% / °C