



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



DESCRIPTION

The MMS is a ultra-small magnetically actuated reed sensor (SPST) that requires no power. It is manufactured by using semiconductor wafer technology. Its biggest advantages are the small dimensions with 4.8 mm x 2.05 mm (0.189"x 0.081").



APPLICATIONS

- Medical pacemakers and insulin pumps
- Telecommunications
- CMOS gates and other low power signals switching

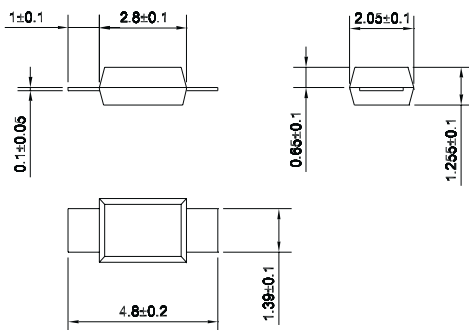
FEATURES

- SMT reed sensors (SPST) in miniature size
- requires no power
- ultra-small dimensions
- designed for switching low power devices (max. 3 VDC)
- 10⁹ Ohm insulation resistance across the contacts
- magnetic sensitivity ranges from 1.8 to 4.0 milliTesla
- preferably packaged in tape & reel according to IEC 286/part 3, waffle package possible
- electrostatic sensitive device!!

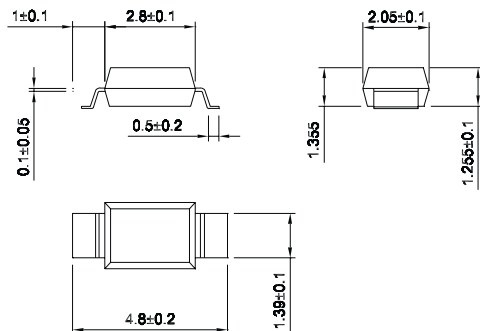
DIMENSIONS

All dimensions in mm [inches] unspecified tolerances +/- 0.1 mm

Lead design 1



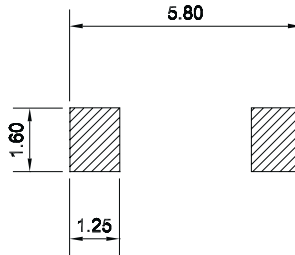
Lead design 2



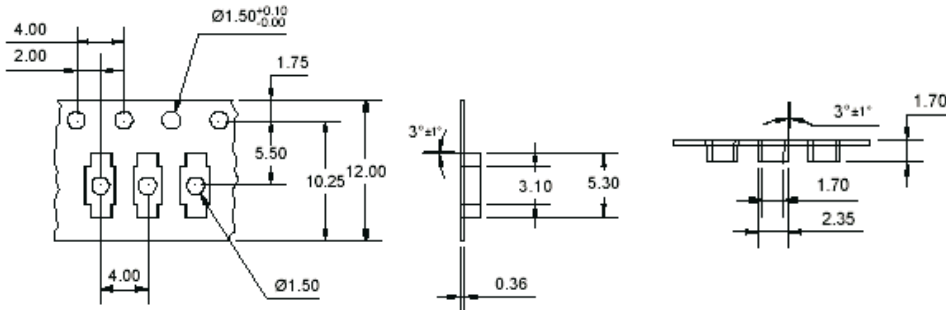
Micro Machined Sensors

PAD LAYOUT

Lead design 1+2



PACKAGING



ORDER INFORMATION

Part Number Example

MMS - B - 1

B is the magnetic sensitivity
1 defines the lead design

Series	Sensitivity Class	Lead Design
MMS	B	1,2

CONTACT DATA

All Data at 20° C	Contact Form -->	Form A / _{Dry}			
Contact Ratings	Conditions	Min.	Typ.	Max.	Unit
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			0.3	mW
Switching Voltage	DC or peak AC			3.0	V
Switching Current	DC or peak AC			100	µA
Carry Current	DC or peak AC			100	µA
Static Contact Resistance	Measured w/ 0.5 V & 50 µA		50	1000	Ω
Insulation Resistance across Contacts	25 Volt applied	10 ⁹			Ω
Breakdown Voltage across Contacts		50			VDC
Operate Time incl. Bounce	Measured w/ 40 % overdrive		0.1	0.2	ms
Release Time	Measured w/ no coil suppression		0.05	0.1	ms
Capacitance	at 10 kHz across contact		0.2	0.5	pF
Life Expectancies					
	Switching Voltage 1.5 V & 15 µA	10 ⁷			Cycles
Magnetic Characteristics					
Pull-In	Ramped in 0.1 mT/ms steps	1.8		4.0	mT
Drop-Out	Ramped in 0.1 mT/ms steps	0.5		3.2	mT
Environmental Data					
Shock Resistance	Any direction	5000			g
Vibration Resistance	From 10 - 2000 Hz	30			g
Ambient Temperature	10°C/ minute max. allowable	-20		100	°C
Stock Temperature	10°C/ minute max. allowable	-55		150	°C
Soldering Temperature	3.5 sec. at			260	°C
Cleaning		fully sealed			
Packaging	Tape & Reel	17.78 mm Reel (7 inch), 12 mm width, 4 mm ptich			
Marking	On Tape & Reel Packaging	A: Supplier Part Number B: Supplier Lot Number / Date Code C: Quantity			

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Sensors****ATTENTION**

These devices are especially designed for low voltage and low power switching! The following points must be respected when the device is connected in a circuit:

- Voltage spikes (electrostatic or otherwise) across the terminals in the open mode are limited to 10 dv/dt
- Switched voltages and current are limited to the maximum ratings
- The parallel capacitance added across the switch is less than 100 pF
- Minimize stray capacitance to less than 100 pF in any lead circuit
- The mounting and test equipment are properly grounded, as they may induce voltage spikes across the terminals
- All handling is performed on a conductive mat, and the operator is also grounded through a wrist contact bracelet
- Permanent sticking or damage of the contacts may result whenever any of the above warnings is not respected.