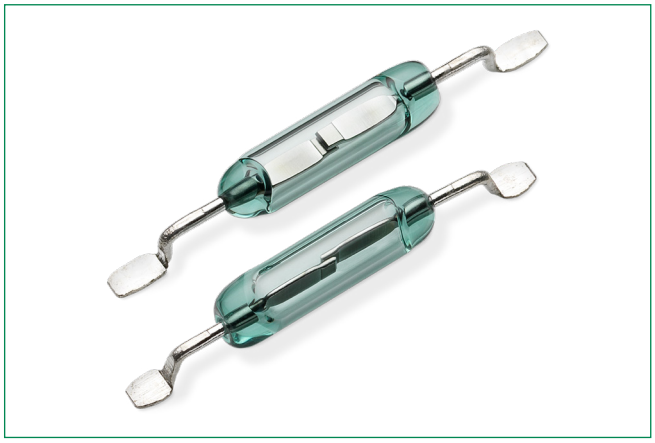
MISM-7

7mm Surface Mount Reed Switch



Additional Information

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Description

The MISM-7 surface mount reed switch is a sub-miniature, normally open switch with a 7mm long x 1.8mm diameter (0.276" x 0.071") glass envelope, capable of switching up to 0.25 Amps.

This reed switch is a surface mount version of the MITI-7. It has a high insulation resistance of 1012 Ohms minimum and a contact resistance of less than 150 milliohms.

Features & Benefits

- Ultra-miniature surface mount normally open switch
- Available sensitivity range 6-10 AT
- Capable of switching 170 Vdc or 0.25A up to 10W
- Hermetically sealed switch contacts are not effected by and have no effect on their external environment
- Zero operating power required for contact closure
- Excellent for switching microcontroller logic level loads
- Very low space requirement

Applications

- Position Sensing
- Level Sensing
- Meter Equipment
- Security
- Office Equipment

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c UL us	E47258 E471070	6 - 20AT

Note: Contact Littelfuse for specific agency approval ratings.

Switch Type

Contact Form	A (SPST-NO)
Materials	Body: Glass Leads: Tin-plated Ni-Fe wire

Note: SPST-NO = Single-pole, single-throw, normally open

Electrical Ratings

Contact Rating [1]		W/VA - max.	10
Voltage [3]	Switching [2] Breakdown [4]	Vdc - max. Vac - max. Vdc - min.	170 120 175
Current [3]	Switching [2] Carry	Adc - max. Aac - max. Adc - max.	0.25 0.18 0.50
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.150 10^{12}
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating Storage [5]	°C °C	-40 to +125 -65 to +125

Notes:
1. Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
2. When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
3. Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
4. Breakdown Voltage - per MIL-STD-202, Method 301.
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.

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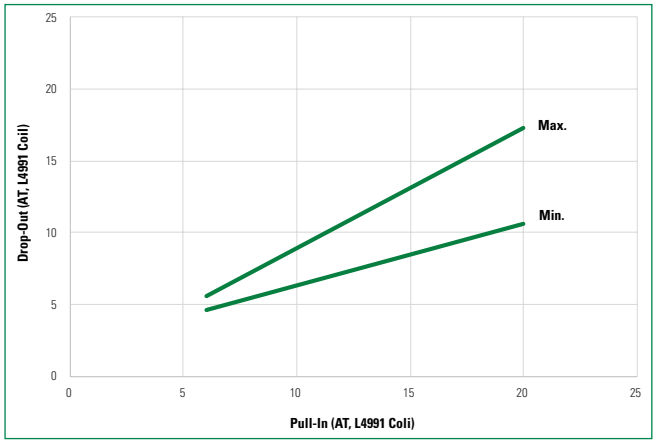
Product Characteristics

Operating Characteristics		
Operate Time [1]	-	0.45ms - max.
Release Time [1]	-	0.20ms - max.
Shock [2]	11ms 1/2 sine wave	100G - max
Vibration [2]	50-2000 Hertz	30G - max.
Resonant Frequency	-	14kHz - typ.

Magnetic Characteristics		
Pull-In Range [3]	Ampere Turns	6-10, 10-15, 15-20
Rating Sensitivity [4]	Ampere Turns	10
Test Coil	-	L4991

Notes:
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil I).
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
3. Pull-In Range - Contact Littelfuse for narrower AT ranges available. These AT values are the before modification AT of the MITI-3V1.
4. Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.

Drop-Out vs. Pull In Chart



Note: Chart represents the range of Drop-Out, min to max for a given Pull-In value.

Part Numbering System

MISM-7 R _ - 6-10

Series

Packaging
R = Tape and Reel
B = Bulk

Form
Blank = 13.72mm
5 = 12.60mm

AT Range
6-10 AT
10-15 AT
15-20 AT

Example: 6-10 AT product is MISM-7R-6-10

Note: These AT values are the before-modification values of the bare reed switch.

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity and Packaging Code	Taping Width
Tape and Reel	EIA-RS-481-1	3000	R	32mm

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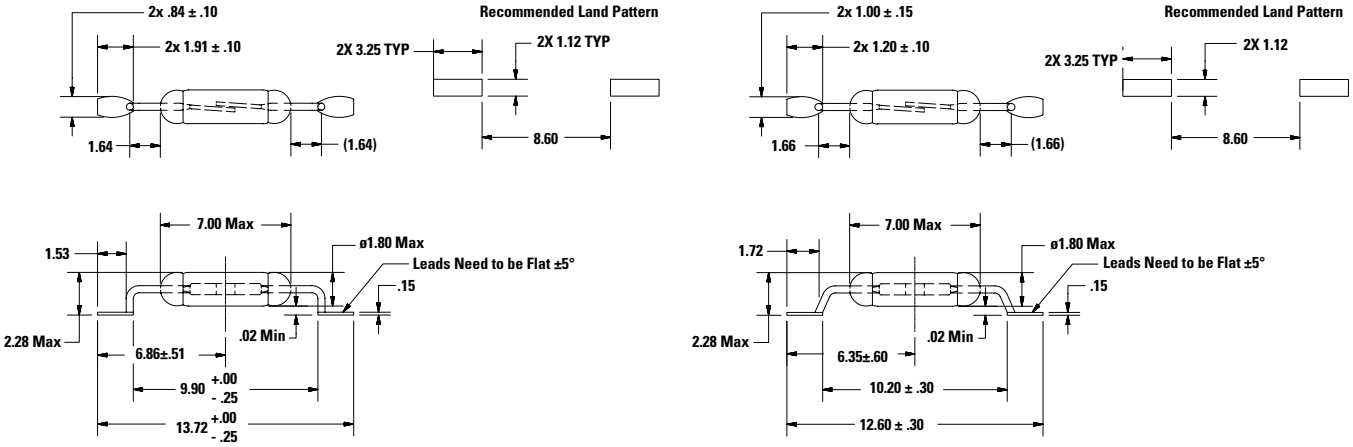
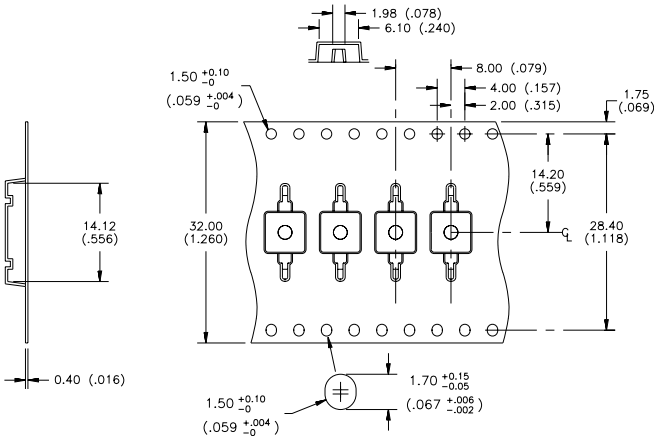
Dimensions
Dimensions in mm



Note: Land pattern is Littelfuse recommendation only.
User is responsible for proper PCB design.
Reed orientation is configurable.

Tape Dimensions mm (inch)



Reel Dimensions mm (inch)