

# MDSM-10

## 10.2mm Sub-miniature Surface Mount



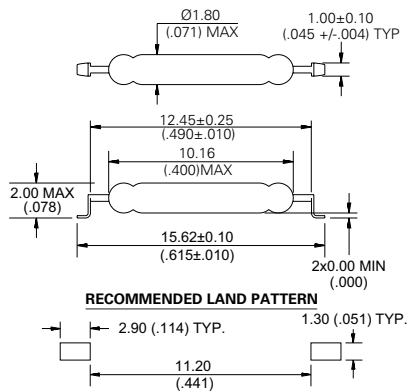
### Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
|--------|--------------------|--------------------|
|        | E47258<br>E471070  | 10-25 AT           |

**Note:** Contact Littelfuse for specific agency approval ratings.

### Dimensions

Dimensions in mm (inch)



**Note:** Land pattern is Littelfuse recommendation only. User is responsible for proper PCB design.

### Description

The MDSM-10 Reed Switch is a sub-miniature, surface mounting, normally open switch with a 10.16mm long x 1.80mm diameter (0.400" x 0.071") glass envelope, capable of switching 200Vdc at 10W.

This reed switch is a surface mount version of the MDSR-10. It has high insulation resistance of  $10^{12}$  ohms minimum and low contact resistance of less than 120milli-ohms.

### Features & Benefits

- Surface mounting normally open switch
- Capable of switching 200Vdc or 0.5A at up to 10W
- Low, stable contact resistance
- Available sensitivity 10-25 AT
- Hermetically sealed switch contacts are not affected by
- and have no effect on their external environment
- Low space requirement
- Zero operating power required for contact closure
- Excellent for switching microcontroller logic level loads

### Applications

- Position Sensing
- Level Sensing
- Security
- Metering

### Switch Type

|                     |   |
|---------------------|---|
| <b>Contact Form</b> | A (SPST-NO)                                 |
| <b>Materials</b>    | Body: Glass<br>Leads: Tin-plated Ni-Fe wire |

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

### Electrical Ratings

|                                    |                             |                 |             |
|------------------------------------|-----------------------------|-----------------|-------------|
| <b>Contact Rating</b> <sup>1</sup> |                             | W/VA - max.     | 10          |
| <b>Voltage</b> <sup>3</sup>        | Switching <sup>2</sup>      | Vdc - max.      | 200         |
|                                    | Breakdown <sup>4</sup>      | Vac - max.      | 140         |
| <b>Current</b> <sup>3</sup>        | Switching <sup>2</sup>      | Vdc - min.      | 250         |
|                                    |                             | Adc - max.      | 0.50        |
|                                    | Carry                       | Aac - max.      | 0.35        |
| <b>Resistance</b>                  | Contact, Initial Insulation | Adc - max.      | 1.00        |
|                                    |                             | $\Omega$ - max. | 0.12        |
| <b>Capacitance</b>                 | Contact                     | $\Omega$ - min. | $10^{12}$   |
|                                    |                             | pF - typ.       | 0.2         |
| <b>Temperature</b>                 | Operating                   | $^{\circ}$ C    | -40 to +125 |
|                                    | Storage <sup>5</sup>        | $^{\circ}$ C    | -65 to +125 |

**Notes:**

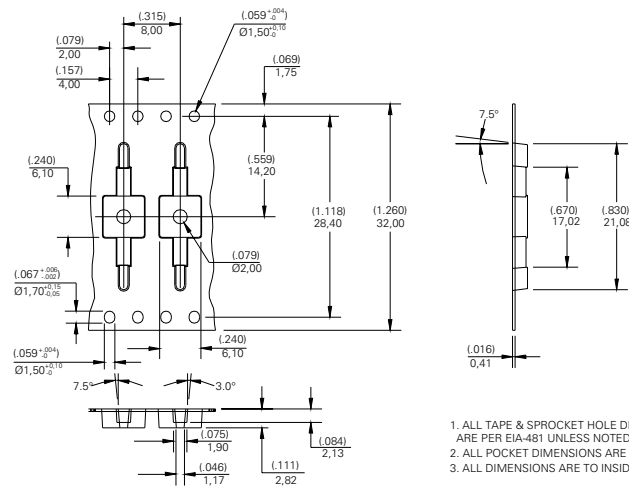
1. Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
2. When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application 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.



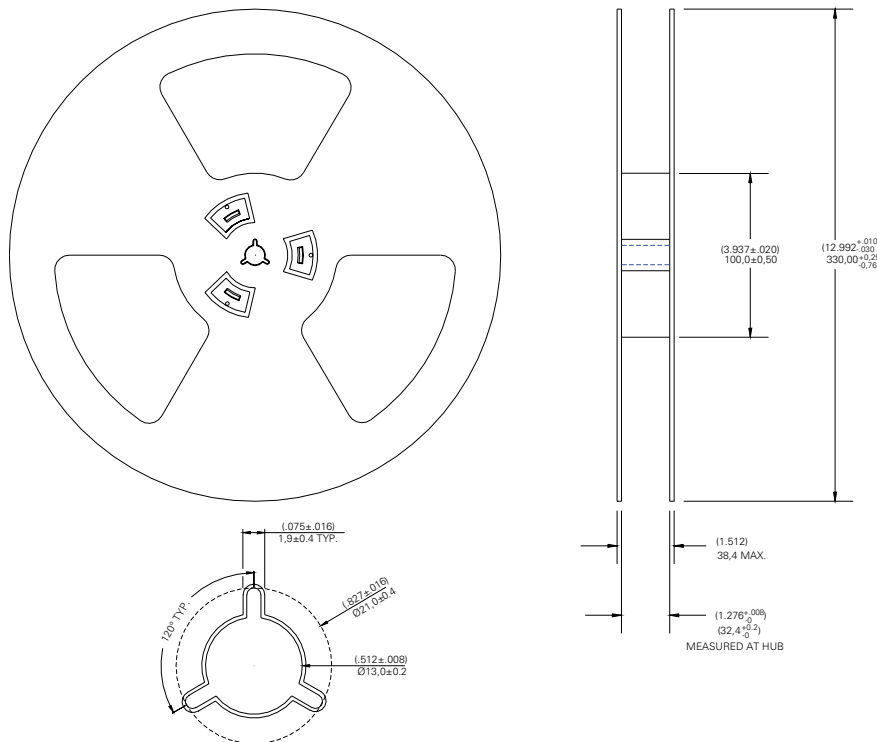
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### TAPE DIMENSIONS mm (inch)



### REEL DIMENSIONS mm (inch)



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