

**DESCRIPTION**

MK22-Sensors are magnetically operated, over moulded Reed proximity Switches for SMD mounting.

**Lead design 1:** Flat, straight leads for PCB slot mounting.

**Lead design 2:** Flat, bent SMD leads (15.6 mm length)

**Lead design 3:** Flat, bent SMD leads (19.5 mm length)

Magnet force and position magnet/sensor determine Pull-In and Drop-Out point. The sensors are supplied taped & reeled according to IEC 286/ part 3 suitable for auto-placement.



**FEATURES**

- Over moulded Reed switches for better mechanical resistance
- Flat leads in three different designs
- Tape & Reel package
- Six operate sensitivities available
- No external power required for sensor operation

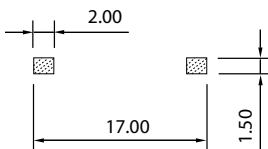
**APPLICATIONS**

- Electronic PCB's where all components are surface mounted
- No power-requirement sensor for low power applications
- Telecommunication applications
- Automotive applications

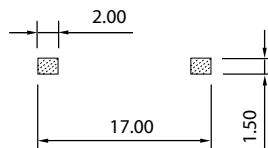
**PAD LAYOUT**

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

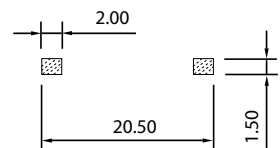
Lead design 1



Lead design 2



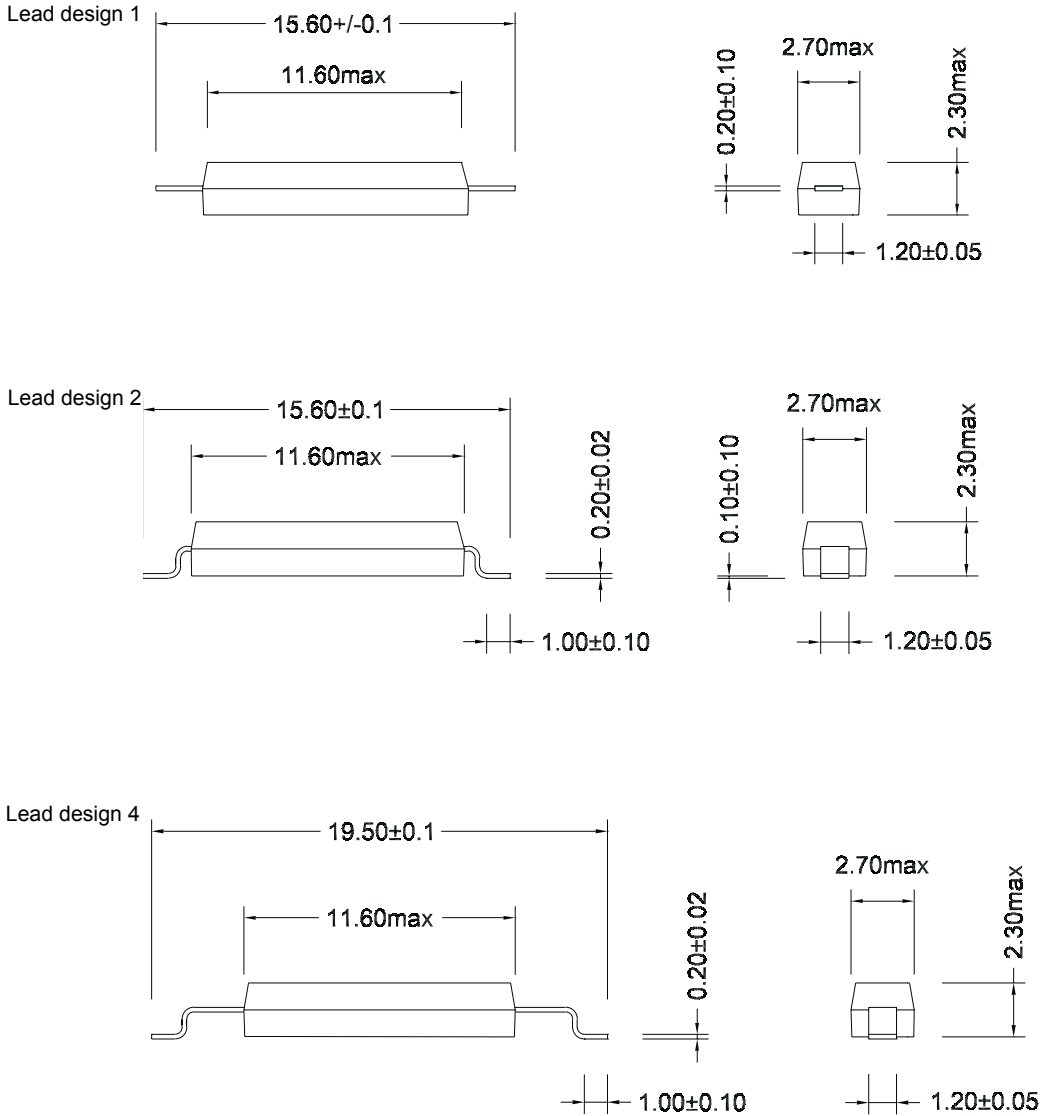
Lead design 4



## Reed Sensors for SMD Mounting

### DIMENSIONS

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



ORDER INFORMATION

Part Number Example

MK22 - B - 4

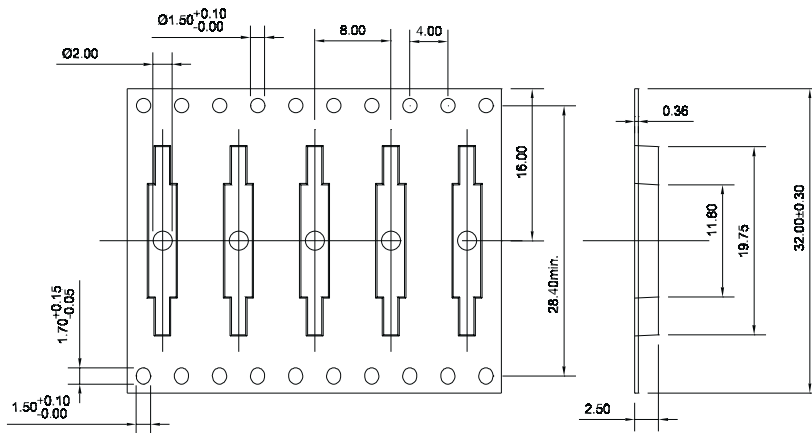
B is the magnetic sensitivity  
4 is the lead design

| Series  | Magnetic Sensitivity | Lead Design |
|---------|----------------------|-------------|
| MK 22 - | X -                  | X           |
| Options | A, B, C              | 1, 2, 4     |

MAGNETIC SENSITIVITY

| Sensitivity Class | Pull In AT Range |
|-------------------|------------------|
| B                 | 10 - 15          |
| C                 | 15 - 20          |

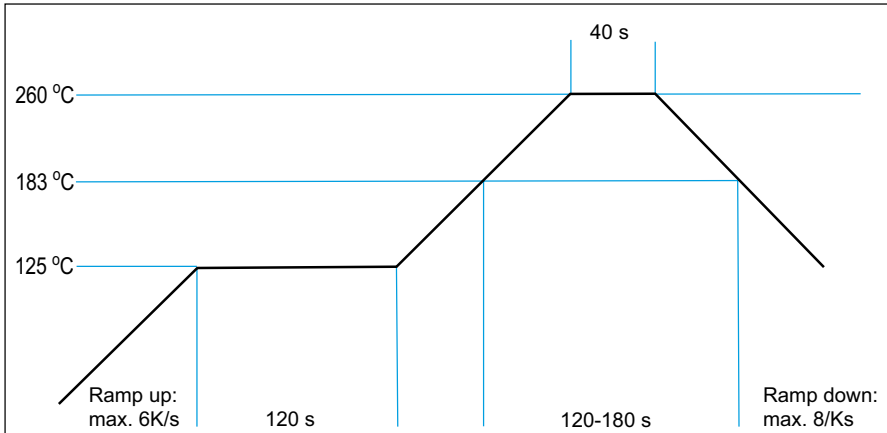
TAPE & REEL



Reed Sensors for  
SMD Mounting

SOLDERING INFORMATION

reflow soldering conditions according JEDEC norm J-STD-020C



CONTACT DATA

| All Data at 20° C  | Contact Form →  | Form A           |      |      |       |
|--|---|------------------|------|------|-------|
| Contact Ratings  | Conditions  | Min.             | Typ. | Max. | Units |
| Switching Power  | Any DC combination of V & A not to exceed their individual max.'s |                  |      | 20*  | W     |
| Switching Voltage  | DC or peak AC   |                  |      | 200  | V     |
| Switching Current  | DC or peak AC   |                  |      | 1.0  | A     |
| Carry Current  | DC or peak AC   |                  |      | 1.25 | A     |
| Static Contact Resistance (initial)  | w/ 0.5 V & 10 mA  |                  |      | 150  | mΩ    |
| Insulation Resistance  | RH 45%  | 10 <sup>12</sup> |      |      | Ω     |
| Breakdown Voltage  | Voltage applied for 60 sec. min.                                  | 320              |      |      | VDC   |
| Operate Time incl. Bounce  | Measured w/ 100 % overdrive                                       |                  |      | 0.5  | ms    |
| Release Time   | Measured w/ no coil suppression                                   |                  |      | 0.1  | ms    |
| Capacitance  | at 10 kHz cross contact   |                  | 0.2  |      | pF    |
| <b>Contact Operation **</b>  |   |                  |      |      |       |
| Pull-In Switch unmodified  | Test coil KMS-02  | 10               |      | 3.5  | AT    |
| Drop-Out Switch unmodified   | Test coil KMS-02  | 5.5              |      | 28   | AT    |
| <b>Environmental Data</b>  |   |                  |      |      |       |
| 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                                       | -40              |      | 130  | °C    |
| Stock Temperature  | 10°C/ minute max. allowable                                       | -50              |      | 130  | °C    |
| Soldering Temperature  | 5 sec.  |                  |      | 260  | °C    |
| * The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch. Consult factory if more detail is required.<br>** These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required. |   |                  |      |      |       |