

Open Reed Sensors for SMD Mounting



FEATURES

- Reed switches without moulding case for reasonable products
- Flat leads in three different designs
- Tape & Reel package
- Six operate sensitivities available
- No external power required for sensor operation

DESCRIPTION

MK23-Sensors are magnetically operated, open 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.

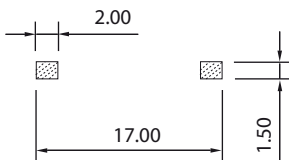
APPLICATIONS

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

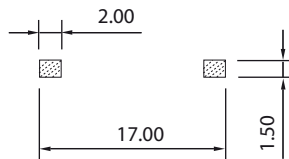
PAD LAYOUT

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

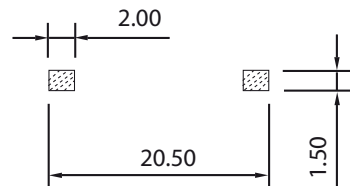
Lead design 1



Lead design 2

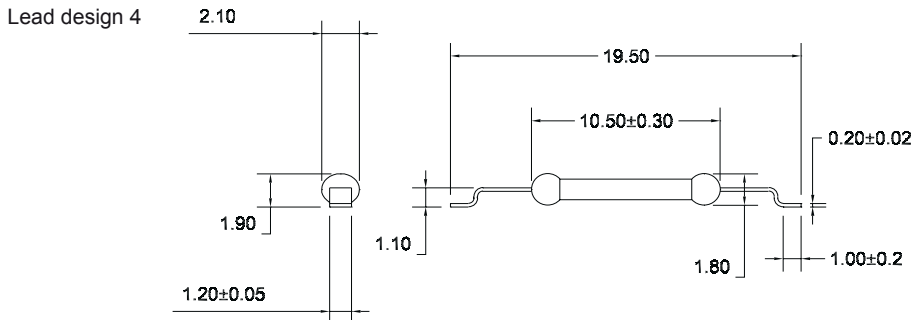
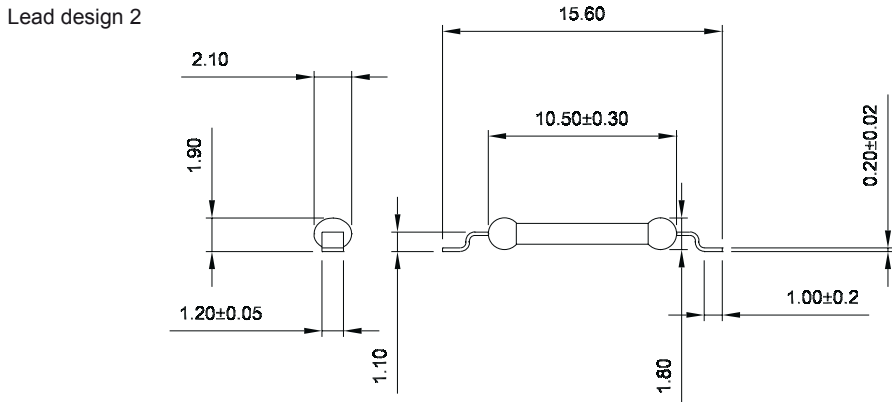
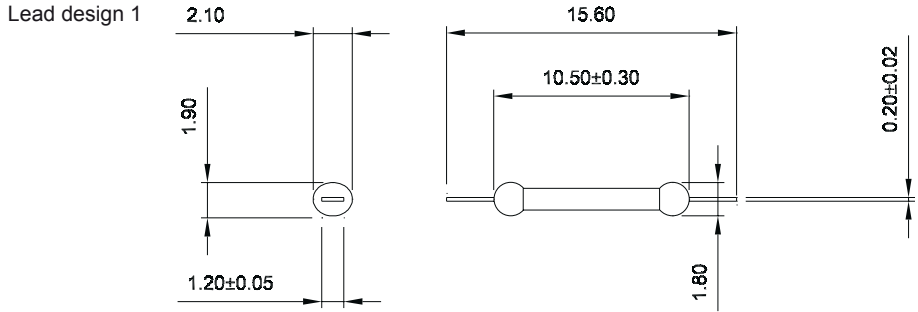


Lead design 4



DIMENSIONS

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



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for SMD Mounting**

ORDER INFORMATION

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

Part Number Example

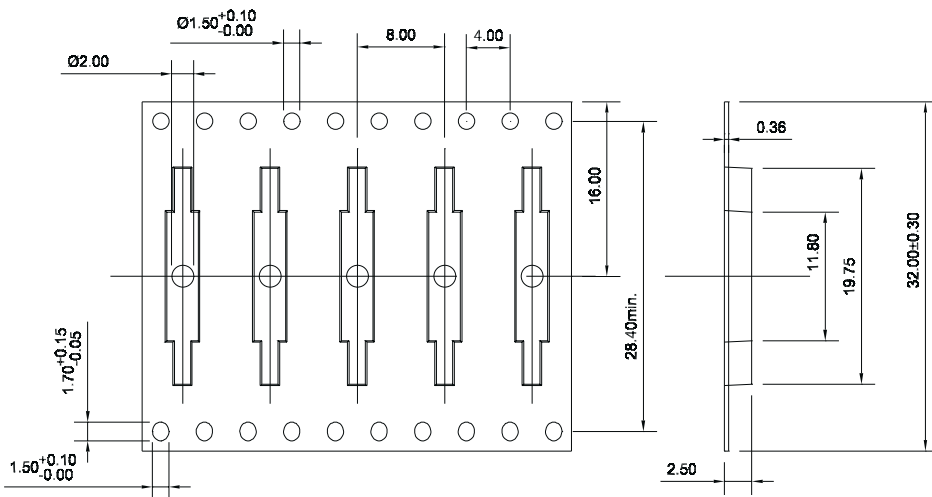
MK23 - B - 4

B is the magnetic sensitivity
4 is the lead design

MAGNETIC SENSITIVITY

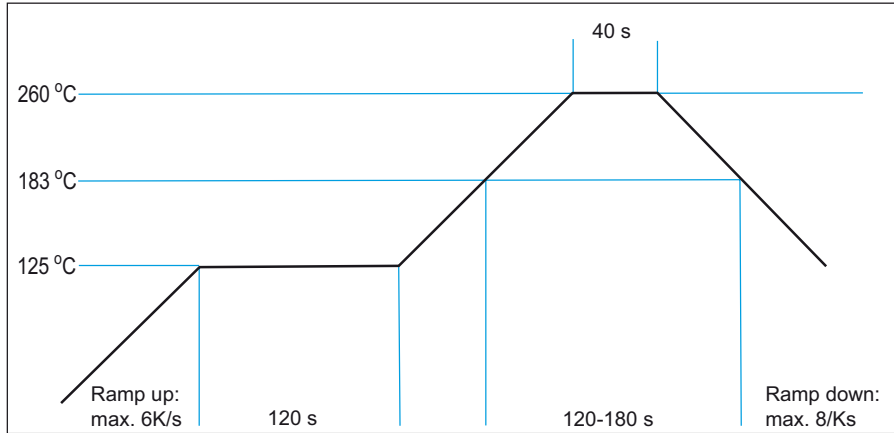
| Sensitivity Class | Pull IN At Range |
|-------------------|------------------|
| B | 10 - 15 |
| C | 15 - 20 |

TAPE & REEL



SOLDERING INFORMATION

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



Open Reed Sensors for SMD Mounting

CONTACT DATA

| All Data at 20° C | Contact Form → | Form A | | | Units |
|---|---|------------------|------|------|-------|
| | | Min. | Typ. | Max. | |
| Contact Ratings | Conditions | | | | |
| 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 ¹² | | | Ω |
| Breakdown Voltage | Voltage applied for 60 sec. min. | 320 | | | VDC |
| Operation 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 |
| Contact Operation ** | | | | | |
| Pull-In Switch unmodified | Test coil KMS-02 | 10 | | 3.5 | AT |
| Drop-Out Switch unmodified | Test coil KMS-02 | 5.5 | | 28 | AT |
| Environmental Data | | | | | |
| Shock Resistance | 1/2 sinus wave duration 11 ms | | | 30 | 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 |
| <p>* The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch. Consult factory if more detail is required.</p> <p>** These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.</p> | | | | | |