## DESCRIPTION

MK24 are the smallest, magnetically operated Reed proximity switches for SMD mounting.

- Lead design 1: Flat, straight leads for PCB slot mounting.
- Lead design 2: Flat, bent SMD leads.
- Lead design 3: J-Lead.

The sensors are supplied in 16 mm Tape \& Reel package according to IEC 286/part 3 suitable for auto-placement.

## FEATURES

- Small dimensions: $5.0 \times 2.2 \times 1.7 \mathrm{~mm}$
- Three operate sensitivities available
- Tape and Reel available
- Excellent for low power operations
- No external power required for sensor operation
- UL approved



## APPLICATIONS

- Electronic PCB's where all components are surface mounted
- Telecommunication applications (Hook switch in mobile and hard-wired phones)
- Switching element in microphones
- Medical technologies
- Rotary encoder


## DIMENSIONS

All dimensions in mm [inch]


## Reed Sensors for

 SMD Mounting
## ORDER INFORMATION

| Series | Magnetic <br> Sensitivity | Lead <br> Design |
| :---: | :---: | :---: |
| MK24 - | $\mathbf{X}-$ | $\mathbf{X}$ |
| Options | A, B, C | $1,2,3$ |

## Part Number Example

MK24-B-1
B is the magnetic sensitivity 1 is the lead design

## MAGNETIC SENSITIVITY

| Sensitivity <br> class | Pull In <br> AT Range |
| :---: | :---: |
| A | $5-10$ |
| B | $10-15$ |
| C | $15-20$ |

## TAPE \& REEL



## SOLDERING INFORMATION

reflow soldering conditions according JEDEC norm J-STD-020C
(260 ${ }^{\circ} \mathrm{C}$

Reed Sensors for SMD Mounting

## CONTACT DATA

| All Data at $\mathbf{2 0}{ }^{\circ} \mathrm{C}$ | Contact Form $\rightarrow$ | Form A |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Contact Ratings | Conditions | Min. | Typ. | Max. | Units |
| Switching Power | Any DC combination of $V$ \& A not to exceed their individual max.'s |  |  | 1 | W |
| Switching Voltage | DC or peak AC |  |  | 60 | V |
| Switching Current | DC or peak AC |  | 0.1 | 0.3 | A |
| Carry Current | DC or peak AC |  |  | 0.5 | A |
| Static Contact Resistance | w/ 0.5 V \& 10 mA |  | 300 | 500 | $\mathrm{m} \Omega$ |
| Dynamic Contact Resistance | Measured w/ 0.5 V \& 50 mA , 1.5 ms after closure |  |  | 500 | $\mathrm{m} \Omega$ |
| Insulation Resistance across Contacts | 100 volts applied | $10^{10}$ |  |  | $\Omega$ |
| Breakdown Voltage across Contact | Voltage applied for $60 \mathrm{sec} . \mathrm{min}$. | 100 |  |  | 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 |  | 0.1 |  | pF |
| Contact Operation * |  |  |  |  |  |
| Must Operate Condition | Steady state field | 10 |  | 30 | AT |
| Must Release Condition | Steady state field | 4 |  | 28 | AT |
| Environmental Data |  |  |  |  |  |
| Shock Resistance | $1 / 2$ sinus wave duration 11 ms |  |  | 30 | g |
| Vibration Resistance | From $10-2000 \mathrm{~Hz}$ |  |  | 20 | g |
| Ambient Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -40 |  | 125 | ${ }^{\circ} \mathrm{C}$ |
| Stock Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -40 |  | 125 | ${ }^{\circ} \mathrm{C}$ |
| Soldering Temperature | 5 sec . dwell | 260 |  | 280 | ${ }^{\circ} \mathrm{C}$ |

Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.

* These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.

