## Surface Mount

## Reed Sensors



## APPLICATIONS

- Telecommunications Hook switch sensor in mobile phones
- Microphones On/off control switch
- Electronic PCB's where all components are surface mounted
- Connection detection in battery chargers
- Position detection


## DESCRIPTION

The MK01 sensor offers a selection of magnetically operated Reed proximity switches with J-lead connections for SMD mounting. The sensors are provided in standard 32 mm tape according to IEC 286 / part 3. Several AT ranges for the pull-in / drop-out sensitivities are available. Low profile packaging with a height of only 3.25 mm .

## FEATURES

- Surface Mount Design
- Form C available
- High power switches available
- Four operate sensitivities available

DIMENSIONS
All dimensions in mm [inch]


SCHEMATIC DRAWING
View from top of component


ORDER INFORMATION

| Series | Contact Form | Magnetic <br> Sensitivity |
| :---: | :---: | :---: |
| MK01 - | $\mathbf{X}$ | $\mathbf{X}$ |
|  | 1 Form A | B, C, D, E |
|  | 1 Form C | H, I, K |

Part Number Example:
MK01 - B
B is the magnetic sensitivity

| Sensitivity Class | Pull-In <br> AT Range |
| :---: | :---: |
| B | $10-15$ |
| C, H | $15-20$ |
| D, I | $20-25$ |
| E, K | $25-30$ |

TAPE \& REEL
All dimensions in mm [inch]


# SOLDERING INFORMATION <br> All dimensions in mm [inch] 

Recommended Pad Layout


## CONTACT DATA

| All Data at $20^{\circ} \mathrm{C}$ | Contact Form $\rightarrow$ | Form A |  |  | Contact 90 Form C |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contact Ratings | Conditions | Min. | Typ. | Max. | Min. | Typ. | Max. | Units |
| Switching Power | Any DC combination of V \& A not to exceed their individual max.'s |  |  | 10 |  |  | 20 | W |
| Switching Voltage | DC or peak AC |  |  | 200 |  |  | 175 | V |
| Switching Current | DC or peak AC |  |  | 0.5 |  |  | 0.5 | A |
| Carry Current | DC or peak AC |  |  | 1.25 |  |  | 1.0 | A |
| Static Contact Resistance | w/ 0.5 V \& 10 mA |  |  | 150 |  |  | 150 | $\mathrm{m} \Omega$ |
| Dynamic Contact Resistance | Measured w/ 0.5 V \& 50 mA , 1.5 ms after closure |  |  | 200 |  |  | 250 | $\mathrm{m} \Omega$ |
| Insulation Resistance across Contacts | 100 volts applied | $10^{10}$ |  |  | $10^{9}$ |  |  | $\Omega$ |
| Breakdown Voltage across Contact | Voltage applied for $60 \mathrm{sec} . \mathrm{min}$. | 225* |  |  | 200 |  |  | VDC |
| Operate Time incl. Bounce | Measured w/ 100 \% overdrive |  |  | 0.6 |  |  | 0.7 | ms |
| Release Time | Measured w/ no coil suppression |  |  | 0.1 |  |  | 1.5 | ms |
| Capacitance | at 10 kHz cross contact |  | 0.2 |  |  | 1.0 |  | pF |
| Contact Operation ** |  |  |  |  |  |  |  |  |
| Must Operate Condition | Steady state field | 10 |  | 30 | 15 |  | 40 | AT |
| Must Release condition | Steady state field | 4 |  | 27 |  |  |  | AT |
| Environmental Data |  |  |  |  |  |  |  |  |
| Shock Resistance | $1 / 2$ sinus wave duration 11 ms |  |  | 50 |  |  | 50 | g |
| Vibration Resistance | From $10-2000$ Hz |  |  | 20 |  |  | 20 | g |
| Ambient Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -40 |  | 130 | -20 |  | 85 | ${ }^{\circ} \mathrm{C}$ |
| Stock Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -50 |  | 130 | -35 |  | 85 | ${ }^{\circ} \mathrm{C}$ |
| Soldering Temperature | 5 sec. dwell |  |  | 260 |  |  | 260 | ${ }^{\circ} \mathrm{C}$ |
| Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch. <br> * Insulation Resistance of $10^{12}$ and a breakdown voltage of 480 VDC version is available. <br> **These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required. |  |  |  |  |  |  |  |  |

