**Reed Sensors for
SMD Mounting**

APPLICATIONS

- **Electronic PCB's where all components are surface mounted**
- **Telecommunication applications**
  Hook switch in mobile and hard-wired phones
- **Switching element in microphones**

DESCRIPTION

MK15 are 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.

The sensors are supplied taped & reeled according to IEC 286/part 3 suitable for auto-placement. The special features of this series are the small dimensions of only 19.5 x 2.5 x 2.5mm and the simple internal structure (low-cost version).

FEATURES

- Excellent for low power operations
- High power switches available
- Six operate sensitivities available
- Tape and Reel available
- No external power required for sensor operation
- UL approved

DIMENSIONS

All dimensions in mm [inches]
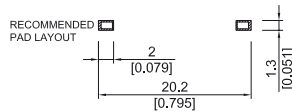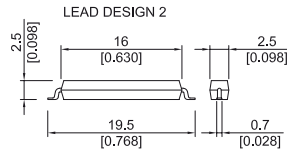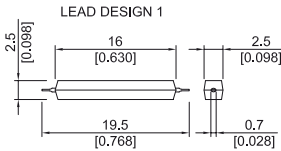
MAGNETIC SENSITIVITY

Sensitivity class	Pull In At Range
B	10 - 15
C	15 - 20
D	20 - 25
E	25 - 30
F	30 - 35
G	35 - 40

ORDER INFORMATION

Part Number Example

MK15 - B - 1

B is the magnetic sensitivity
1 is the lead design

Series	Magnetic Sensitivity	Lead Design
MK15 -	**X -**	**X**
Options	B, C, D, E, F, G	1.2

SUNSTAR http://www.sensor-ic.com/ TEL: 0755-83376549 FAX 0755-83376182E-MAIL: szss20@163.com

TAPE & REEL

B-B

2.8+/-0.2
[0.11+/-0.0079]

C x4

1.5+/-0.1
[0.059+/-0.0039]

R0.75
[R0.03]

2.8+/-0.2
[0.11+/-0.0079]

1.7+/-0.15
[0.0669+/-0.0059]

0.2+/-0.05
[0.0079+/-0.002]
(Flat section)

8
[0.315]

C   A

A-A

20.1+/-0.2
[0.79+/-0.0079]

32.0+/-0.3
[1.26+/-0.012]

B   B

14.25
[0.561]

Ø2
[Ø0.079]

2
[0.079]

A

1.75
[0.069]

0.3
[0.012]

4
[0.157]

10x4mm=40+/-0.2
[10x0.157ln=1.57+/-0.0079]
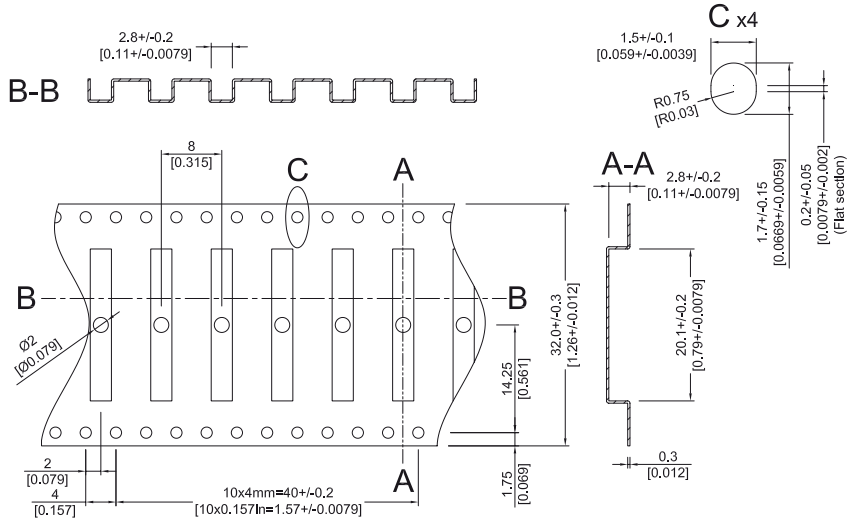
SOLDERING INFORMATION

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

40 s

260 °C

183 °C

125 °C

Ramp up:
max. 6K/s

120 s

120-180 s

Ramp down:
max. 8/Ks

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			10	W
Switching Voltage	DC or peak AC			200	V
Switching Current	DC or peak AC			0.5	A
Carry Current	DC or peak AC			1.25	A
Static Contact Resistance	w/ 0.5 V & 10 mA			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure			200	mΩ
Insulation Resistance across Contacts	100 volts applied	10^{12}			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	225			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 *					
Must Operate Condition	Steady state field	10		30	AT
Must Release Condition	Steady state field	4		27	AT
Environmental Data					
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		85	°C
Stock Temperature	10°C/ minute max. allowable	-50		85	°C
Soldering Temperature	5 sec. dwell			260	°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.