REDROCK™ MEMS-BASED REED SWITCH

RedRock™ MEMS-Based Reed Switch

Ideally suited to the needs of Medical, Industrial, Automotive, and other applications where small size, zero power operation, and hot switching capabilities are required, the RedRock™ MEMS-Based Reed Switch is a single-pole, single throw (SPST) device with normally open ruthenium contacts. The sensor may be actuated by an electro-magnet, a permanent magnet, or a combination of both.

RedRock™ MEMS-Based Reed Switch

- 1.26mm² Footprint – World's Smallest Reed Switch
- 300 mW Switching Power
- Highly Directional Magnetic Sensitivity
- Hot Switchable
- 50 G Shock Resistance
- Broad Operating Temperature Range
- Hermetically Sealed
- Ideal for SMD Pick and Place
- Tape and Reel Packaging
- RoHS Compliant

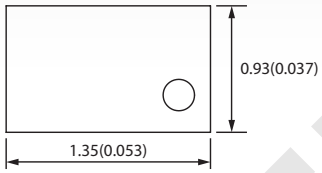
APPLICATIONS

- Medical Devices
- Pulse Counters
- Battery Powered Devices
- Prosthetics
- Robotics
- Animal Tracking
- High Resolution Position & Level Sensing

DIMENSIONS

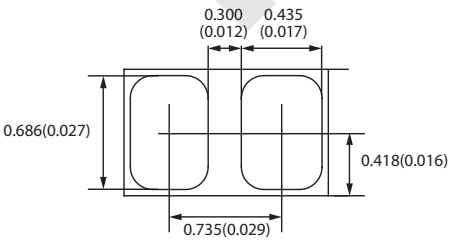
in Millimeters (Inches)

Top View

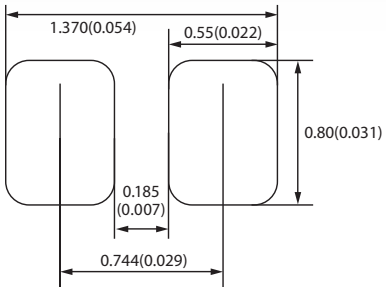


Side View

Bottom View



Pad Dimensions in millimeters as viewed from bottom of die (pad side)



Ordering Information

Part Number: RR100ENG

Ordering Information (Evaluation Kit)

Part Number: RR100ENG-EK1

All specifications are preliminary and subject to change without notice.
For more information please refer to Coto Technology's Product Warranty, Trademarks & Disclaimers.

rev. 07032014

REDROCK™		RR100ENG
Parameters	**Units**	**Nominal Value**
OPERATING CHARACTERISTICS		
Operate Range[1,2]	mT	15
Release Range[1,2]	mT	8
Operate Time (including bounce)	µs	500
Bounce Time	µs	100
Release Time	µs	200
Pull Strength[3]	gm	300
ELECTRICAL CHARACTERISTICS		
Switched Power	mW	300
Switched Voltage DC	V	100
Switched Voltage AC, RMS	V	70
Switched Current DC	mA	50
Switched Current AC, RMS	mA	35
Carry Current DC	mA	100
Carry Current AC, RMS	mA	70
Rise in temperature (mounted on FR4)	°C	10
Breakdown Voltage	VDC	200
Contact Resistance @ 40 mT	Ω	2
Contact Capacitance	pF	0.5
Insulation Resistance (min.)	Ω	10^{12}
LIFE EXPECTANCY		
No Load - 1V/10mA, MCBF	Operations	10^{7}
ENVIRONMENTAL RATINGS		
Storage Temperature	°C	-55 to +150
Operating Temperature[4]	°C	-40 to +85
Vibration Resistance	G	50
Shock Resistance	G	50

Notes:

[1]For a magnet positioned perpendicular to the long axis of the switch, in the plane of the switch base.
[2]For other switch sensitivities, please contact Coto Technology.
[3]For a force applied to the top edge of the long axis, normal to that axis, in the plane of the switch base.
[4]For other operating temperatures, please contact Coto Technology.

For all inquiries,
please contact redrock@cotorelay.com

rev. 07032014