

# Distinctive Characteristics

## DSA

Environmentally friendly, contains no mercury.

High contact reliability due to sealed body.

The switch is triggered when tilted beyond  $\pm 10^\circ$  of the horizontal.

PCB adaptor available as an accessory.



## DSB

Photo interrupter, rather than contacts, ensures high reliability. 1 million operations minimum.

Sealed construction for protection from environmental elements, including hydrogen sulfide, sulfur dioxide, and nitrogen hydroxide. Terminals are made of ammonia-resistant materials.

Totally sealed body allows process compatibility for time- and money-saving automatic soldering and cleaning.

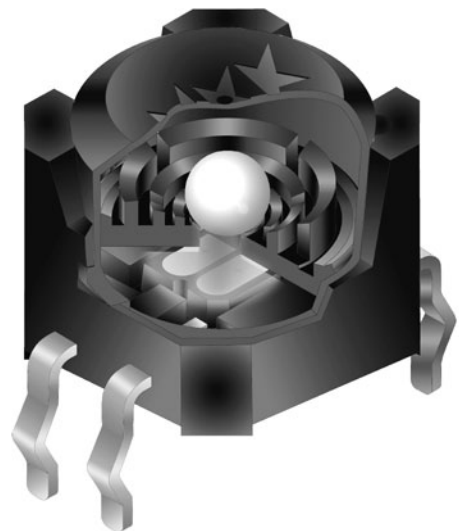
Space-saving compact dimensions allow high density mounting.

Internal steel ball movement allows functionality of  $360^\circ$  circumference rotation.

The DSB series switch is well-suited to meet product safety concerns due to normally closed (on) status.

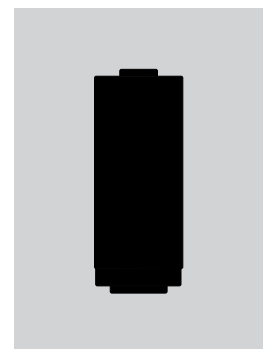
Crimped terminals ensure secure mounting and prevent dislodging during wave soldering.

The switch is triggered when tilted beyond  $\pm 30^\circ$  of the horizontal.

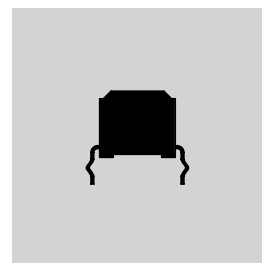


Actual Sizes

DSA



DSB



## DSA SWITCH PART NUMBER & DESCRIPTION



## DSA SWITCH SPECIFICATIONS

### Mechanical & Electrical Specifications

<b>Poles and Circuits:</b>	Single Pole Single Throw ON - OFF
<b>Operating Range:</b>	ON Angle = 10° ~ 170°; OFF Angle = 190° ~ 350°
<b>Resistive Load:</b>	0.1A @ 12V DC
<b>Contact Resistance:</b>	100 milliohms maximum
<b>Insulation Resistance:</b>	50 megohms minimum @ 250V DC
<b>Dielectric Strength:</b>	250V AC for 1 minute minimum between terminals
<b>Mechanical Life:</b>	100,000 operations minimum
<b>Electrical Life:</b>	100,000 operations minimum

### Materials & Finishes

<b>Housing:</b>	PBT
<b>Rubber Rings:</b>	Nitrile Butadiene Rubber
<b>Contact Balls:</b>	Brass with Silver Plating
<b>Terminals:</b>	Brass with Silver Plating

### Environmental Specifications

<b>Operating Temperature Range:</b>	-10°C ~ +70°C (+14°F ~ +158°F)
<b>Storage Temperature Range:</b>	-25°C ~ +85°C (-13°F ~ +185°F)
<b>Contact Bounce (for reference):</b>	500ms maximum
<b>Humidity:</b>	90% humidity for 96 hours @ 40°C (104°F)
<b>Vibration (for reference):</b>	Frequency range 10Hz ~ 500Hz for 2 hours; 2 directions; Acceleration: 0.2G
<b>Notes:</b>	1. Do not install switch near vibration source. 2. Terminals should not be exposed to liquid.

### Processing for AT094 PCB Adaptor

<b>Soldering (with PCB Mount Holder):</b>	Wave Soldering: See Profile A in Supplement section. Manual Soldering: See Profile B in Supplement section.
<b>Automated Cleaning:</b>	Hand clean locally using alcohol based solution.