



Force Sensing Resistor Data Sheet (FSR).

A Force Sensing Resistor is a variable resistor in which resistance decreased when pressure is applied.

The device is made of a circuitry layer, printed with a conductive ink and a force sensing layer. The two layers are separated by a spacer.

Force sensing can be used as a simple potentiometer or a pressure sensor. It can be incorporated in a touchpad, a slider or a force measuring device. More complex applications include musical instrument or automotive seat detector.

General specifications

- Durability : 10,000,000 cycles
- Max current input : 5mA
- Operating voltage : 1 - 5 Vdc
- Resistance not activated : > 20Mohms
- Resistance activated : can be customized
- Environmental temperature range : -25°C to 70°C (ASTM1596 level 2)
- Typical thickness : 0.5mm

Special features

- Ultra thin : 0.4 ~ 0.5mm
- Easily customizable to various sizes and shapes
- Cost effective
- Able to customize to a wide range of actuation force 50g ~ 1kg
- Robust, up to 10 million actuations

Applications

- Musical instruments
- Game controllers
- Medical device controls
- Force measuring devices
- Detection devices(presence or position)