

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)

This document is provided for information purposes only and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.