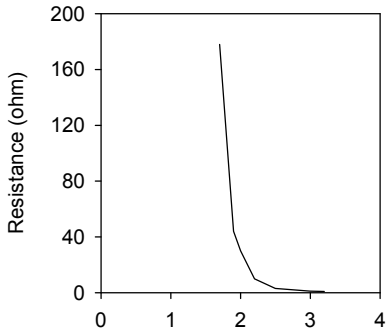
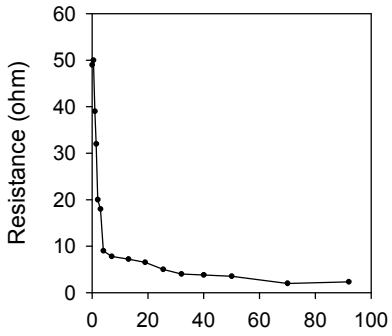
***ZOFLEX*® ZL60.1** is a pressure sensitive conductive rubber with a Shore A hardness of 60. Its resistance change with pressure is very drastic: the material is at a high resistance state>30MΩ when applied pressure is below the actuation pressure; the material is at a very low resistance state (can be ≤0.1Ω) when applied pressure is equal or above the actuation pressure. It can be used in applications such as conductive rubber keypads, mechanical pressure switches, RF gaskets and etc… Its unique pressure activated conductivity simplifies product design since it can rest on the conductive media without creating electrical shorts. Compared to typical carbon pills (0.15" diameter, 0.015" thick), it has similar actuation force (<200g) but has a lower contact resistance (200Ω typical for carbon pills), and does not create potential shorts due to carbon residue accumulation on PCB traces.

Chracteristic	Data	Conditions
Operating Voltage Range	0-30V	DC or AC
Resistance Without Pressure	>30MΩ	25°C
Min. Resistance Under Pressure	0.1Ω	25°C
Max. Continuous Power Dissipation	0.3W/cm^2	1cm^2, 1mm thick
Shore A Hardness	60	25°C
Thermal Operating Range	-40°C to 220°C	--
% Elongation	40%	25°C
Max. Pressure	15kg/cm^2 or 210 psi	25°C
Density	1.7g/cm^3	25°C



Sample thickness: 1mm

Fig.1: Resistance change with pressure during a press stroke



Sample thickness: 1mm

Pressure: 1.8kg/cm^2 or 25.5psi

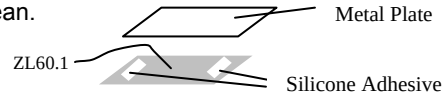
Fig.2: Resistance change over time under constant pressure

Application notes:

1. Attaching ZL60.1 to a metal plate:

Method A: RTV silicone adhesive/sealant can be used to bond ZL60.1 to a metal plate. Please make sure that silicone adhesive does not cover the contact area between the metal plate and ZL60.1.

1.Make sure the surfaces are clean.
2.Apply a thin bead of silicone
3.Cure at 25°C for ~1-2 hrs
4.Cure at 45°C for ~4-5 hrs

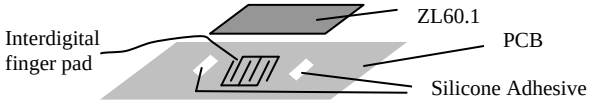


Method B*:* Our FL series of Liquid Conductive Rubber (sold separately) can be used to bond ZL60.1 to a metal plate. It can be applied in the same fashion as silicone adhesive/sealant or it can cover the entire contact area if desired.

Method C: Foam tape can be used to make a frame on the metal plate and then place ZL60.1 inside the frame.

2. Attaching ZL60.1 to an interdigital "finger" pad on PCB:

Method A: RTV silicone adhesive/sealant can be used to bond ZL60.1 to a PCB. Please make sure that silicone adhesive does not cover the contact area between the interdigital finger pad and ZL60.1.



Method B: Foam tape can be used to make a frame on PCB and then place ZL60.1 inside the frame.

Note: For surface areas larger than 1in^2, to prevent rubber from forming a vacuum with the metal plate or PCB, some relief holes should be punched in the rubber, for example:

Solid Sheet Sheet w/ Relief Holes

