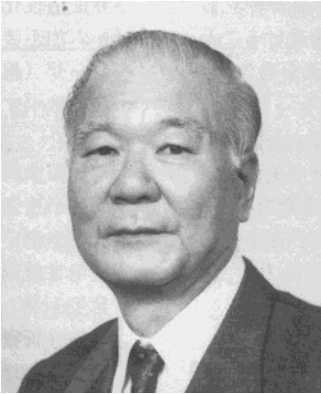
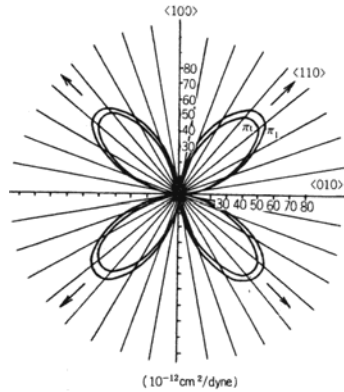


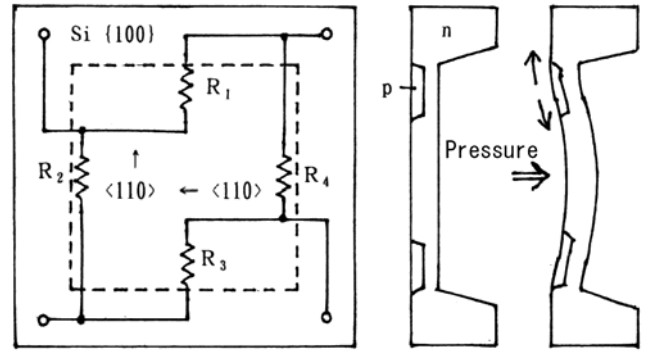
Piezoresistive Pressure Sensor



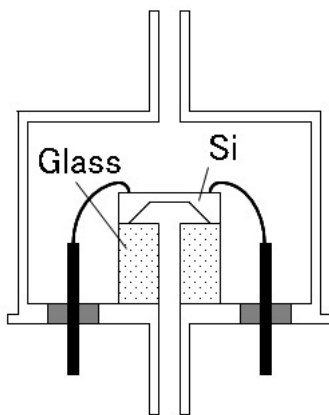
Dr. Iseki Igarashi
(Toyota Central Research Laboratory)



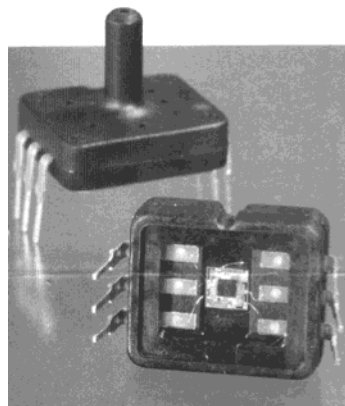
Piezoresistive coefficient on (100) p-Si



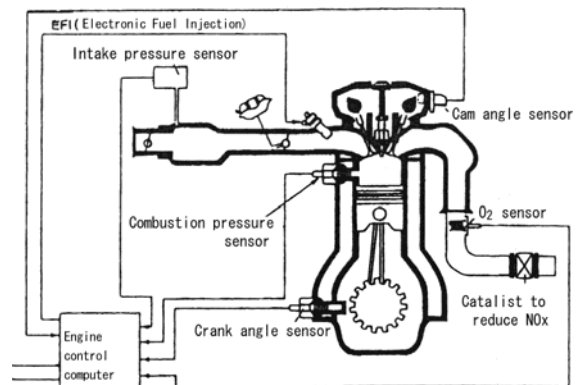
Piezoresistive Si diaphragm pressure sensor



Packaging of pressure sensor



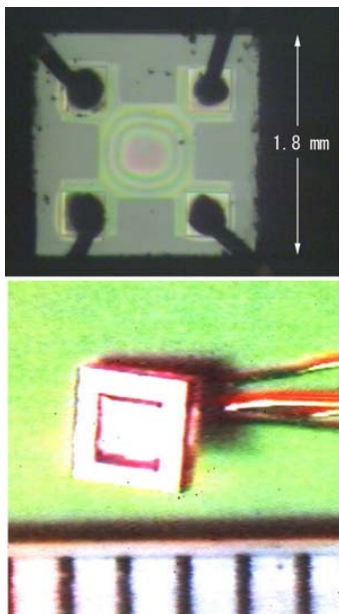
Pressure by Fujikura Ltd. (Sample)



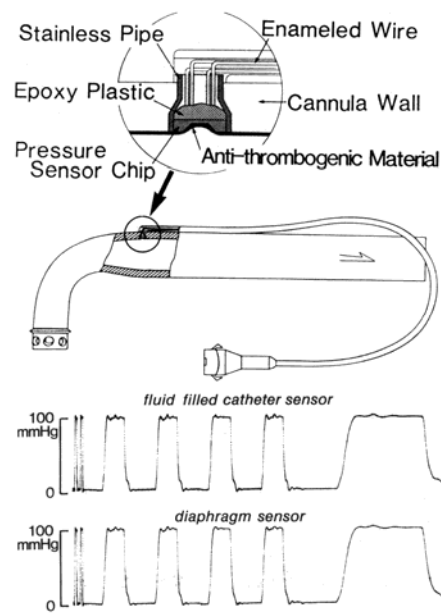
Pressure sensor applied for engine control

Reference : I.Igarashi, Piezo-resistive Effect of Ge and Its Application to Strain Gages, Applied Physics, 29 (1960) pp.73-78
O.N.Tufle (Honeywell), Silicon Diffused-element Piezoresistive Diaphragms, J. of Applied Physics, 33 (1962) pp.3322-3327

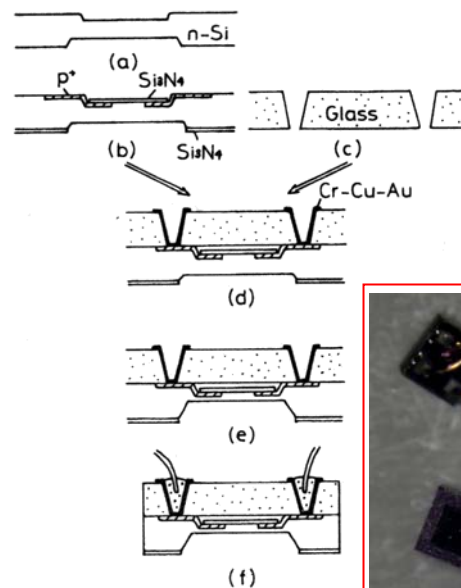
Piezoresistive Absolute Pressure Sensor



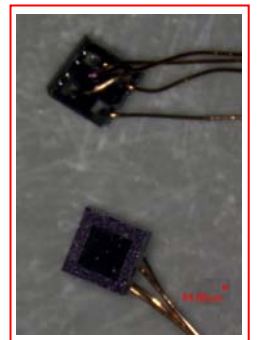
Photograph



Blood pressure monitor in ventricular assist device



Fabrication process



Reference : M.Esashi, Y.Matsumoto and S.Shoji, Absolute Pressure Sensors by Air-tight Electrical Feedthrough Structure, Sensors and Actuators, A21-A23 (1990) pp.1048-1052