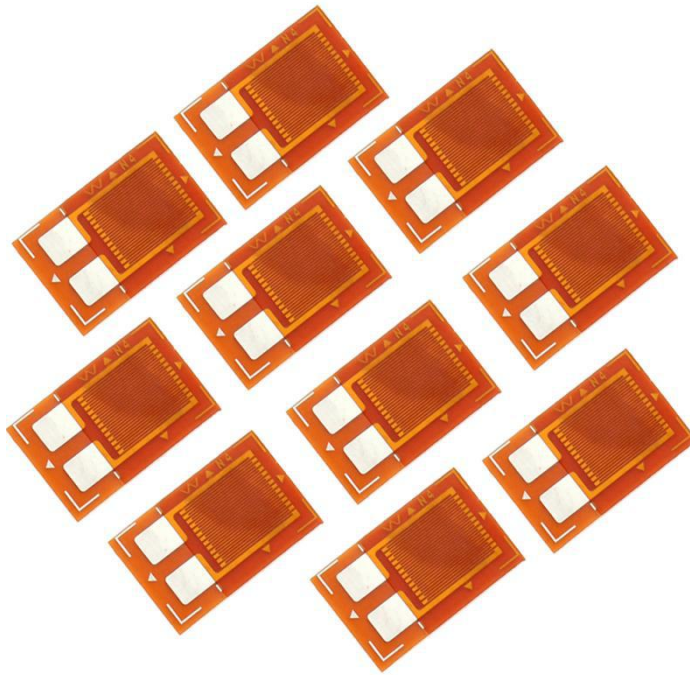




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Foil Resistance Strain Gauge
350 ohm BF350-3AA



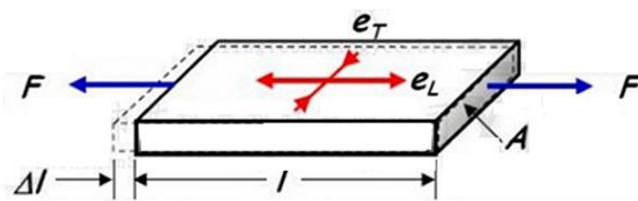
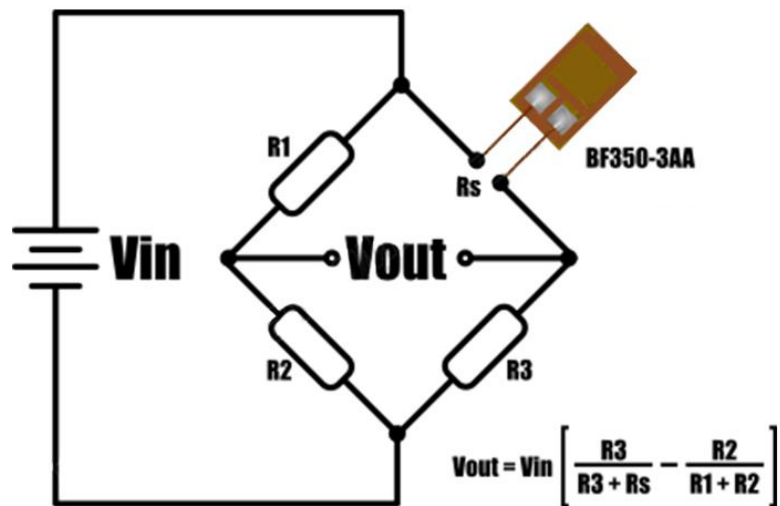
Introduction

A resistive strain gauge sensor with a 350-ohm nominal resistance which varies when a force is applied. By measuring the change in the sensor's resistance, a measurement of the force applied to it can be obtained. The strain gauges exhibit small changes in resistance. Usually used in general metal materials and other similar elastomers.

Parameters

Type	BF350-3 AA
Resistance	350 Ω (typ.)
The Basal Material	Epoxy-Modified Phenolic
Basal Material Thickness	32 $\pm$ 1(μ m)
Grid Material	Constantan
Insulation resistance	10000 Ω
Sensitivity Coefficient	2.1
Sensitivity Coefficient Dispersion	$\leq \pm 1\%$
Transverse effect coefficient	0.4%
Strain Limit	2.0%
Fatigue Lifetime	≥ 1 M
Size	7.1 X 4.5mm/0.28 X 0.18inch(L*W)
Working Temperature	-30~+80 $^{\circ}$ C
Temperature Compensation	Aluminium
Temperature Compensation Coefficient	9,11,16,23,27

Backing Material		Resistance in OHMs		Grid and Tab Geometry		S.T.CODE.M.C		
Kind of Strain Gage		Active Gage Length				Creep Compensation		
B	F	350	3	AA	23	T0		
B	Foil	F	Phenolics	AA	Homo axial	Steel	11	T5 T3 T1 T8 T6 T4 N4 N6 N8 N0 N1 N3 N5 N7 N9
T	Specific use	H	Epoxy	HA	45° Indented Slice	Al	23	→ creep minus → positive
		X		GB	Sewmi-bridge Slice			
		A	Polyimide	FG	Full-bridge Slice			
		B	Reinforced Laminated Epoxy	KA	Wafer Slice	Stainless Steel	16	



Material resistivity

$$R = \frac{\rho l}{A}$$

← Element length

← Cross section area

$$\Delta R = \left(\frac{\partial R}{\partial l} \right) \Delta l + \left(\frac{\partial R}{\partial A} \right) \Delta A + \left(\frac{\partial R}{\partial \rho} \right) \Delta \rho$$