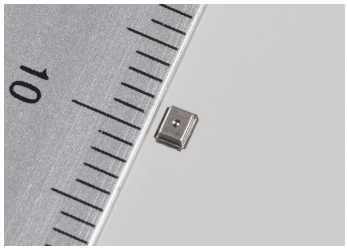
Force Sensor

Model No. HFD-20N-A01

Utilizing long home-nurtured silicon micro-machining technology as core technology, we made it miniaturized and possible to precisely detect micro force.

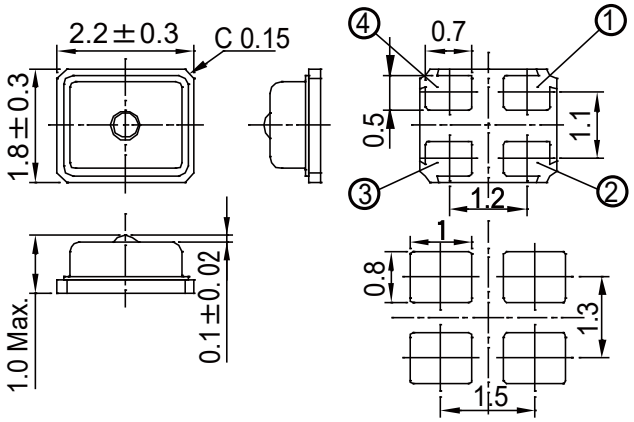


Model No. HFD-20N-A01

■Features

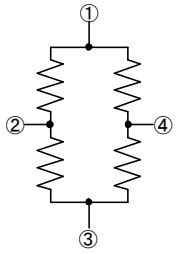
- Small size, Low profile package size 2.8×1.8×t1.0mm Max.
- Capable of Micro-Force Detection with High Sensitivity, High Precision
- High durability, Repetitive Force more than 1 million cycles

■Outline Dimension



Unit : mm

Typical tolerance : ±0.1



Internal Circuit

	Terminal
①	Vcc
②	+OUTPUT
③	GND
④	-OUTPUT

■Specification

1. Maximum Absolute Rating

Item	Rating			Unit	Remark
Supply Voltage	-	-	5.5	Vdc	
Storage Temperature Range	-40	-	85	℃	
Operating Temperature Range	-20	-	60	℃	
Breaking Load	30	-	-	N	
Life	1000k	-	-	Cycles	
Reflow Temperature	-	-	250	℃	60sec or less at 230℃ or more, 2 times Max.
	-	-	10	sec	

2.Rating (Ta=25°C, Vcc=Usable at less than 5.5V)

Item	Rating			Unit	Remark
	Min.	Typ.	Max.		
Operating Force Range	0	-	20	N	
Bridge Resistance	3.5	5	6.5	kΩ	
Offset Voltage	-3.3	-	3.3	mV/V	Output voltage when 0[N] is alllied *1, *2
Sensitivity	-	5	-	mV/V/N	
Linearity	-3	-	3	%FS	FS=Full Scale Span
Offset Temp. Characteristics	-5	-	5	mV	Δfrom +25°C
Sensitivity Temp. Characteristics	-0.1	-	0	mV/N/℃	at -20 ~ +60°C

*1 The sensor outpit (Output Voltage) is ratiometric to the drive voltage

*2 OUTPUT Voltage = (+OUTPUT Voltage) - (-OUTPUT Voltage)

*3 Please consult us separately for medical and automotive use.