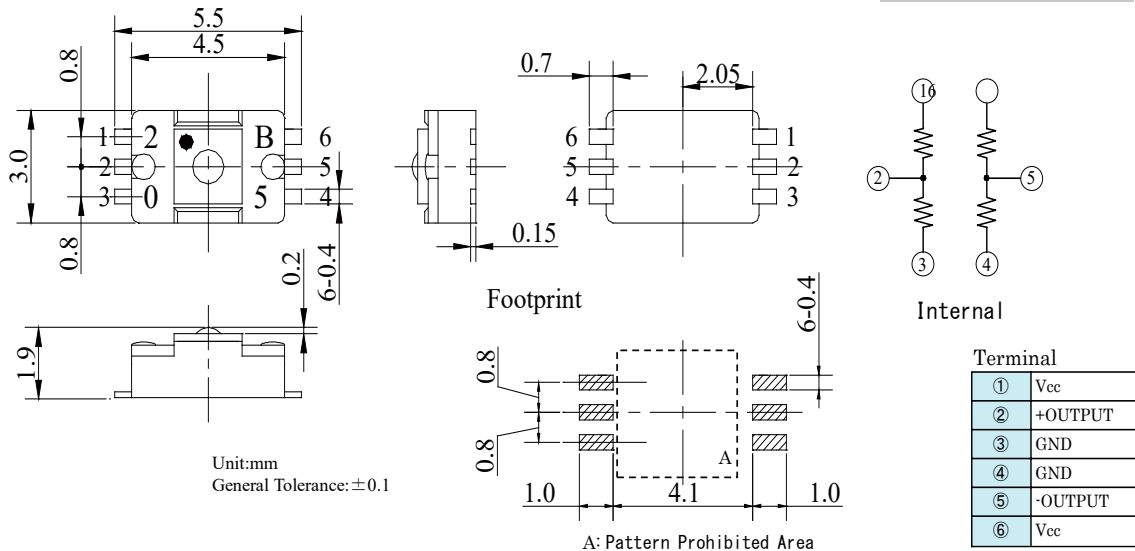


Model No. HFD-500S

Leveraging our core MEMS technology cultivated over many years, this device enables detection of minute loads below 1N with high precision, which was unattainable with conventional methods.

■Features

- Compact and low profile: Dimensions 5.5 × 3.0 × 1.9 mm
- Detection of minute loads possible with high sensitivity and high precision
- High durability, life cycle exceeding 1 million cycles



■Specifications

1. Absolute Maximum Rated

Item	Rated			Unit	Remarks
	Min.	Typ.	Max.		
Drive Voltage	-	-	5.5	V	
Storage Temperature Range	-40	-	85	°C	
Operating Temperature Range	-20	-	60	°C	
Breaking Load	70	-	-	N	
Life	1000k	-	-	Cycles	5 to 10 N 60 Hz (sine wave)
Reflow Temperature	-	-	250	°C	230°C or higher, 60 sec. or less.
	-	-	10	sec.	Max 2 times

2. Rated (Vcc = 2.8 Vdc, Ta = 25°C)

Item	Rated			Unit	Remarks
	Min.	Typ.	Max.		
Measured Load Range	0	-	10	N	
Drive Voltage	-	2.8	-	V	Operable below 5.5V ※1
Bridge Resistance	18	25	32	kΩ	
offset voltage	-10	-	10	mV	Output voltage at 0 [N] ※1. ※2
Full-scale span	120	130	140	mV	(Output voltage at 10[N] load) - (Output voltage at 0[N]) ※1. ※2
Sensitivity	-	13	-	mV/N	
Output Linearity	-3	-	3	%FS	FS = Full Scale Span
Offset sensitivity CHAR.	-5	-	5	mV	Δ from +25°C
Sensitivity TEMP. CHAR.	-0.1	-	0	mV/N/°C	at -20 to +60°C

※1 Sensor output (OUTPUT Voltage) is ratiometric with respect to the drive voltage.

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