

DATA SHEET

Part Number: PKGS-00LDP1-R

1. Scope

This data sheet is applied to surface mountable acceleration sensor.

2. Part Number

Murata Part Number :PKGS-00LDP1-R

3. Outline Drawing and Dimensions

- 3-1 Appearance : As per paragraph 10.Appearance criteria.
 3-2 Dimensions : See Figure 2.
 3-3 Construction : A piezo ceramic element is stuck between two ceramic substrate.

4. Characteristics

(* Temperature 25±3°C, unless otherwise noted)

	Parameter	Test Condition	Min.	Typ.	Max.	Units	Note
4-1	Electric Charge Sensitivity	1kHz, 98.1m/s ² (10G) applied in the direction of D axis at Fig.1	-15%	85.7 {0.840}	+15%	fC/(m/s ²) {pC/G}	1,2,5
4-2	Insulation Resistance	10V DC, after 1 min.	500	10000		MΩ	
4-3	Non-Linearity	% of the Full-Scale output at 490 m/s ² (50G). Range : ±50G		1%	5%		
4-4	Resonance Frequency		17	20		kHz	3
4-5	Inclined Angle of Sensitivity Axis	Maximum deviation from initial value at +25°C.	-3	0	+3	Degree	
4-6	Electric Charge Sensitivity Temperature Drift	Maximum deviation from initial value at +25°C	Ta:70°C	0%	+4%	+10%	
			Ta:0°C	-5%	-2.5%	0%	
4-7	Capacitance	1Vrms,1kHz	-30%	770	+30%	pF	
Ref.	<reference Only> Voltage Sensitivity	1kHz, 98.1m/s ² (10G) applied in the direction of D axis at Fig.1		{1.10}		{mV/G}	1,2,4

Note:

- As measured with an applied acceleration in the direction of D at figure 1. In this case, positive voltage and electrical charge are generated at electrode B.
- 1[G] = 9.80665 [m/s²]
- Resonance frequency of inner bimorph element.
- Input impedance of measurement circuit is 10 MΩ(Zi), and amplified gain is 0 dB.
- f (femto)= 10⁻¹⁵

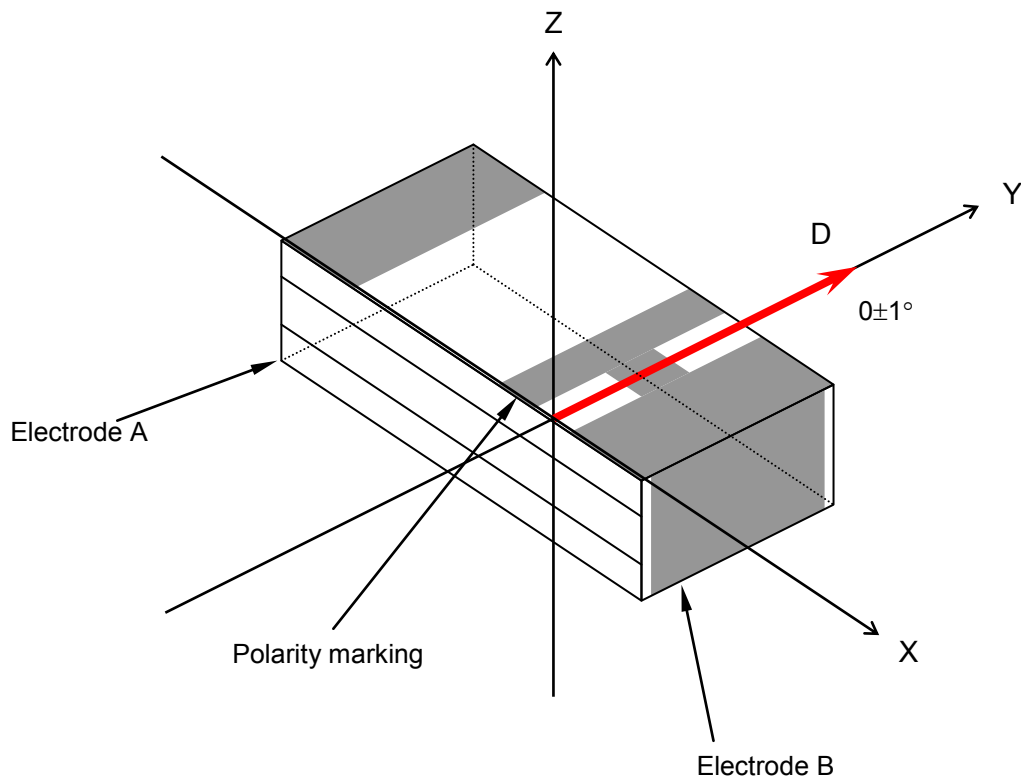
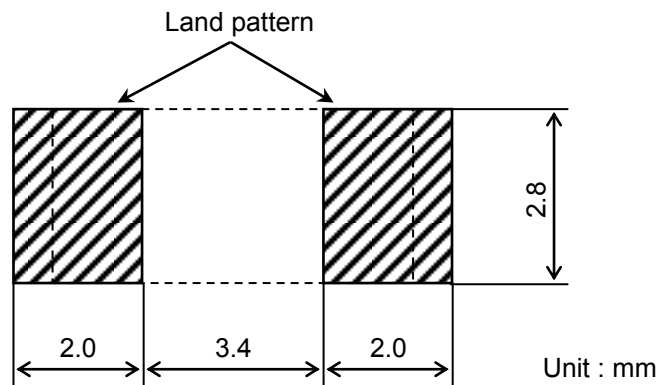


Figure 1.

Axis D : This axis is an acceleration applied direction, when electric charge sensitivity is checked.

5. Standard land pattern



6. Absolute Rating

Apply voltage between electrode A and B	: 10 Vp-p within 60 sec. max.
Storage temperature range	: -40 to 85 °C
Operating temperature range	: -40 to 85 °C