

## DATA SHEET

Part Number : PKGS-25SXAP1-R

## 1. Scope

This data sheet is applied to surface mountable acceleration sensor.

## 2. Part Number

Murata Part Number : PKGS-25SXAP1-R

## 3. 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 substrates.

## 4. Characteristics

(\* Temperature  $25\pm 3^{\circ}\text{C}$ , unless otherwise noted.)

	Parameter	Test Conditions	Min.	Typ.	Max.	Units	Note
4-1	Charge Sensitivity	1kHz, $98.1\text{m/s}^2$ (10G) applied in the direction of D axis at Fig.1	-15%	35.7 (0.350)	+15%	$\text{fC}/(\text{m/s}^2)$ (pC/G)	1, 2, 4
4-2	Insulation Resistance : Ri	10V DC, after 1 min.	100	10000		$\text{M}\Omega$	
4-3	Non-Linearity	% of the Full-Scale output at $490\text{m/s}^2$ (50G). Range : $\pm 50\text{G}$		1%	5%		
4-4	Resonance Frequency		21	27		kHz	3
4-5	Inclined Angle of Sensitivity Axis		22	25	28	Degree	
4-6	Temperature Drift of Charge Sensitivity	Maximum deviation from initial value at $+25^{\circ}\text{C}$ .	$70^{\circ}\text{C}$	-3%	+2%	+7%	
			$0^{\circ}\text{C}$	-4%	-1%	+2%	
4-7	Capacitance : Co	1Vrms, 1kHz	-30%	740	+30%	pF	

## 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.
- $1\text{G} = 9.80665\text{m/s}^2$
- Resonance frequency of inner bimorph element.
- $f = 10^{-15}$

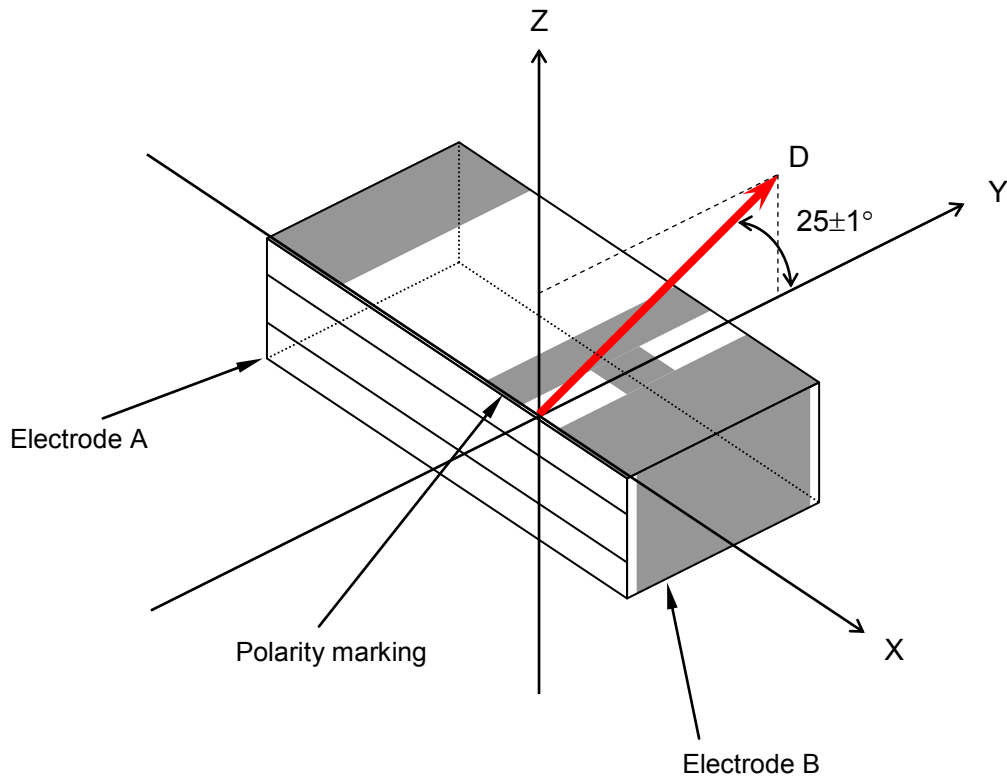
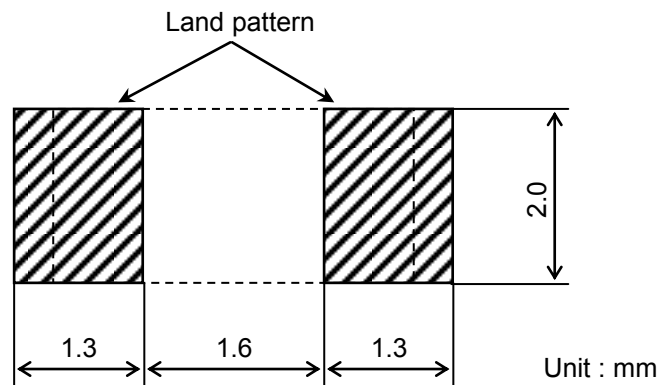


Figure 1.

Axis D : This axis is an acceleration applied direction, when 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