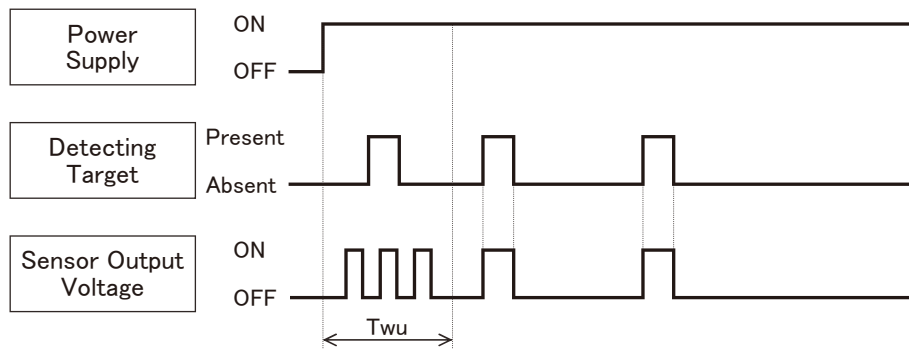


**3. Electrical Characteristic** [Conditions for Measuring: Ambient temperature 25°C(77°F)]

Items		Symbol	VZ series	Measured Conditions
Operating Voltage	Min.	V <sub>dd</sub>	3.0V DC	—
	Max.		6.0V DC	—
Electrical Current Consumption	Avg.	I <sub>w</sub>	170 μA	I <sub>out</sub> =0
	Max.		300 μA	
Output Current	Max.	I <sub>out</sub>	100 μA	V <sub>out</sub> ≥ V <sub>dd</sub> - 0.5
Output Voltage	Min.	V <sub>out</sub>	V <sub>dd</sub> - 0.5VDC	—
Circuit Stability Time (When voltage is applied)	Avg.	T <sub>wu</sub>	—	—
	Max.		30s	

**TIMING CHART**

**1. Digital Output**

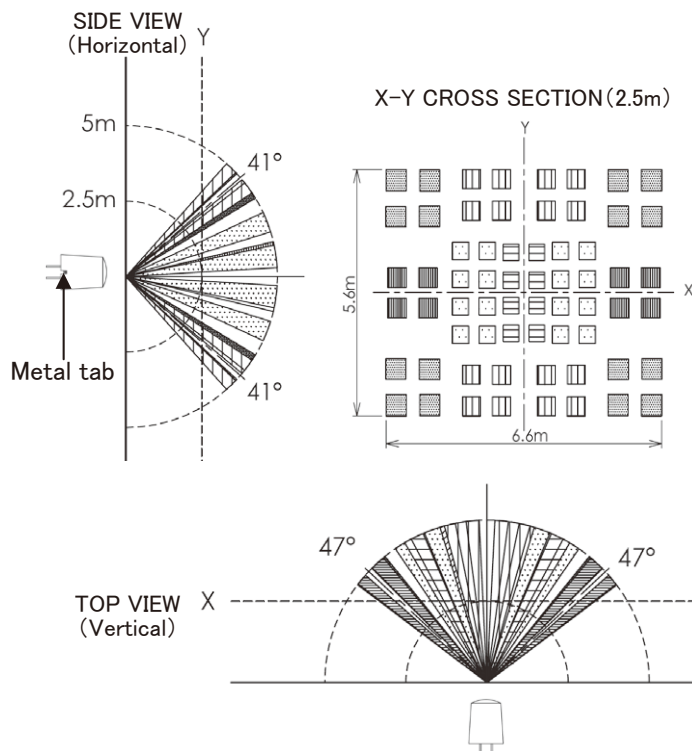


**[Durations]**

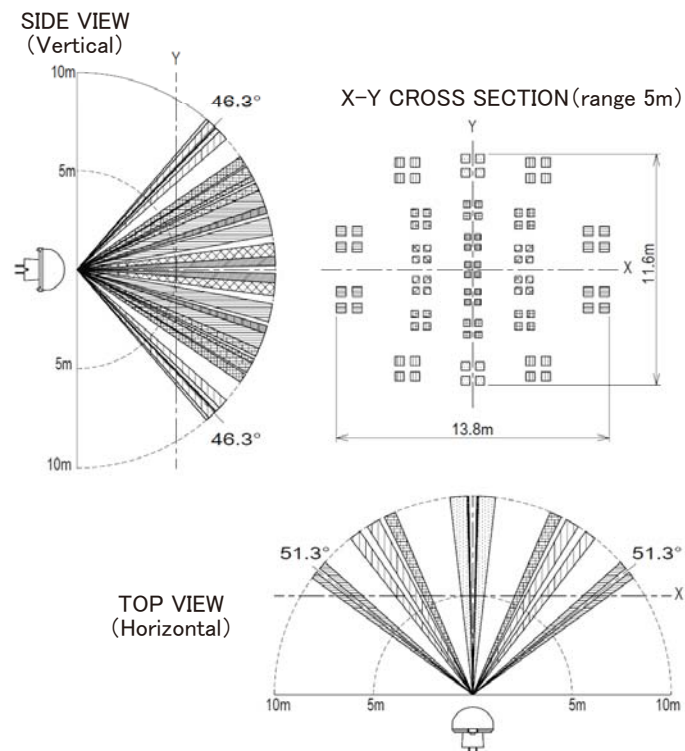
T<sub>wu</sub> : Circuit Stability Time: About 30s. (Max.)  
 During this stage, the output's status is undefined (ON/OFF) and detection is therefore not guaranteed.

**DETECTION PERFORMANCE**

**1) Standard detection type**

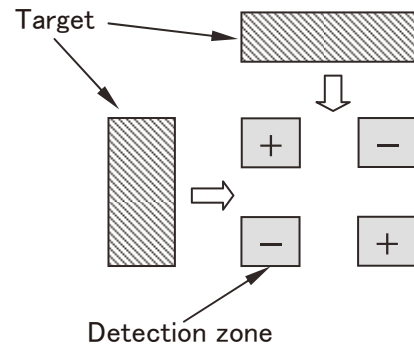


**2) Long Distance detection type**



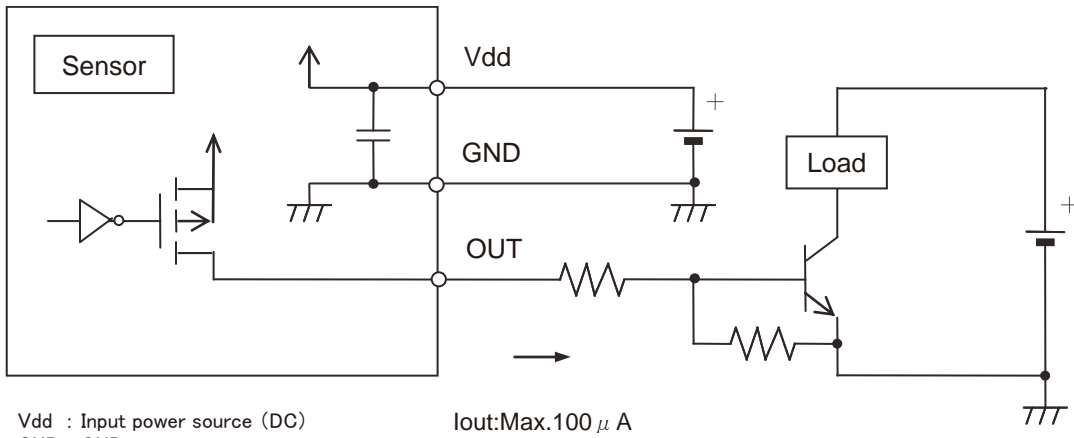
2. Notes Regarding the Detection Zone

As shown on the diagram, the detection zone is polarized.  
 If a target enters the detection zones + and - at the same time, the signals are respectively cancelled and detection could become impossible at maximum detection range.  
 (Please refer to the detection area diagram for details)



**HOW TO USE**

1. Wiring Diagram (Digital Output)



Vdd : Input power source (DC)  
 GND : GND  
 Out : Output (Comparator)

I<sub>out</sub>:Max.100  $\mu$  A

2. Moving Direction Concept

As detailed on the diagram, please install the sensor so that the expected trespassing direction corresponds to the axis X or axis Y.

In some cases, intrusions that occur parallel to the axis Z in every detection zone, closing toward the sensor, may not be detected.

