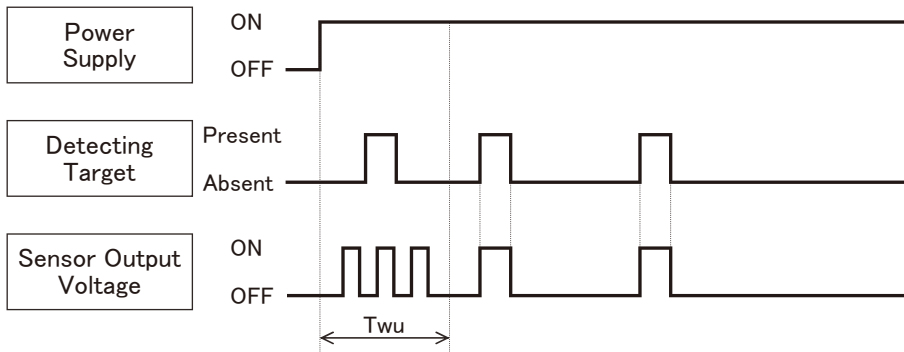


**3. Electrical Characteristic** [Conditions for Measuring: Ambient temperature 25°C(77°F)]

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

**TIMING CHART**

**1. Digital Output**

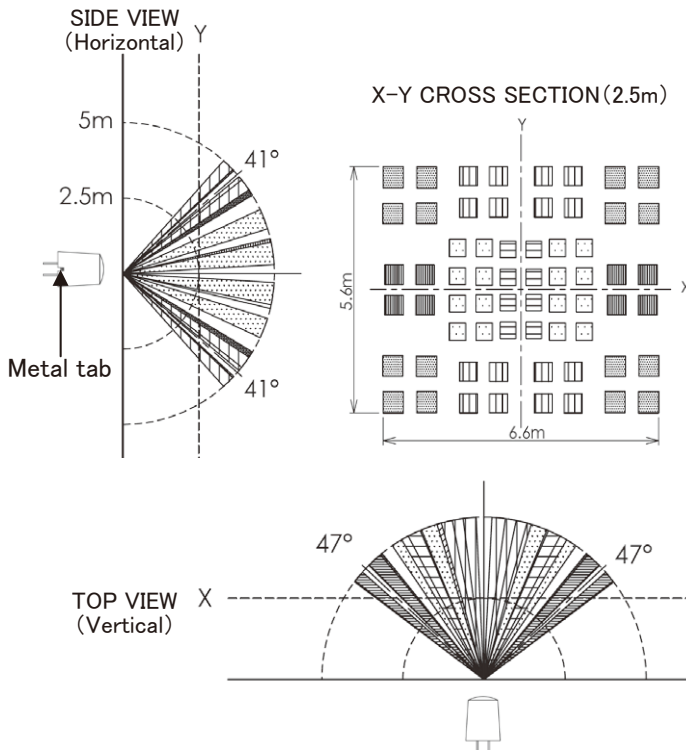


**[Durations]**

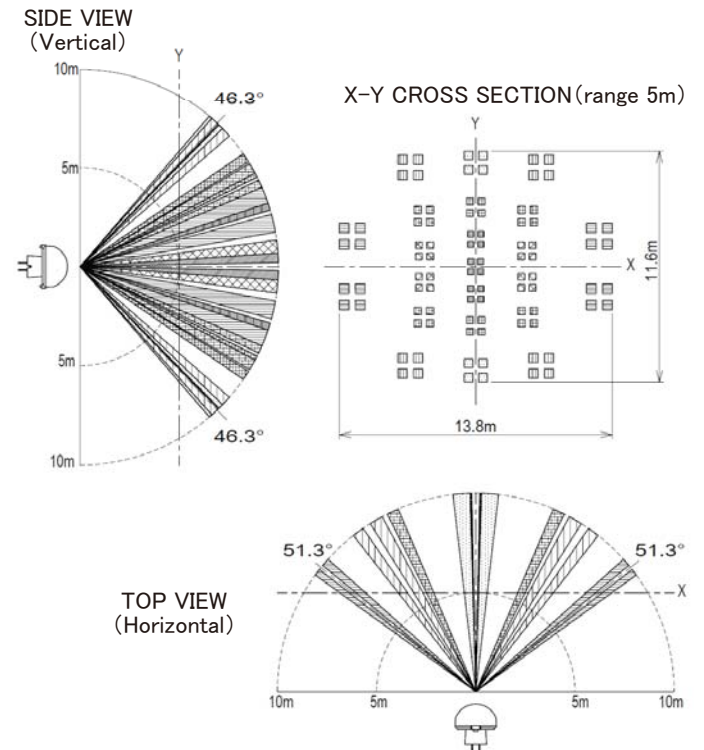
T<sub>wu</sub> : Circuit Stability Time: About 30s. (Max.)  
 During this stage, the output's status is undefined (ON/OFF) and detection is therefore not guaranteed.

**DETECTION PERFORMANCE**

**1) Standard detection type**

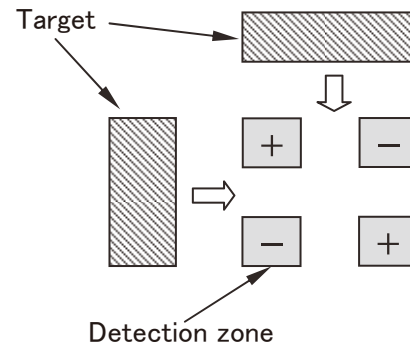


**2) Long Distance detection type**



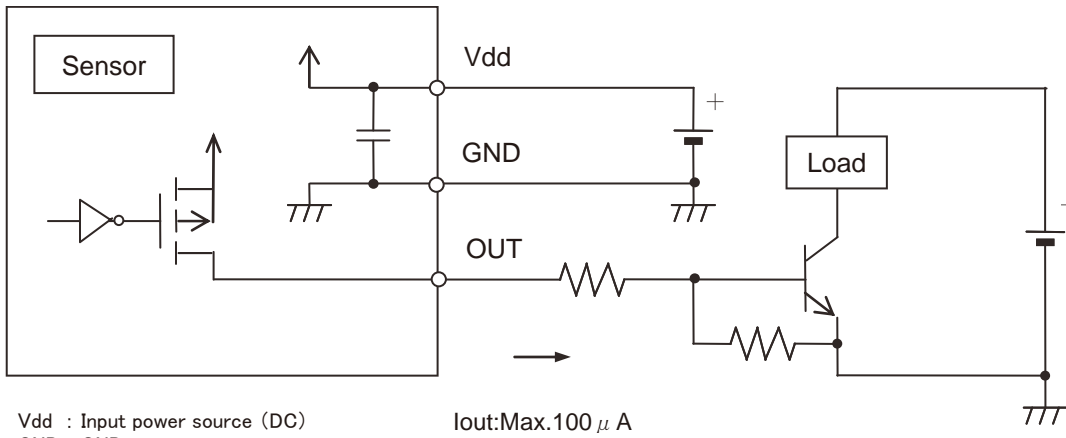
**2. Notes Regarding the Detection Zone**

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)  
Iout: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.

