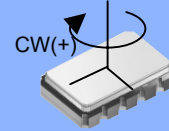


**SENSOR**  
**ULTRA MINIATURE SIZE VIBRATION GYRO SENSOR**  
 (angular rate sensor)  
**XV-3500CB**

- Ultra Small Package size SMD(5 × 3.2 × 1.3 mm)
- Hermetic sealing provides excellent sustainable environmental capability
- High stability using vibration crystal
- Clipped startup time and low power consumption with sleep mode
- Lead(Pb)-free : Lead free completely
- **Recommended Application**
- Detection picture stabilization of DVC and DSC
- Detection of moving with man machine interface



Actual size



**Specifications (characteristics)**

●Absolute Max. Rating

Item	Symbol	Specifications			Remarks
		Min.	Typ.	Max.	
Supply Voltage	V <sub>DD</sub>	-0.3 V		7.0 V	V <sub>SS</sub> =0 V
Input Voltage	V <sub>IN</sub>	-0.3 V		V <sub>DD</sub> +0.3 V	V <sub>SS</sub> =0 V
Storage Temperature	T <sub>STG</sub>	-40 °C		+85 °C	

●Operating Condition

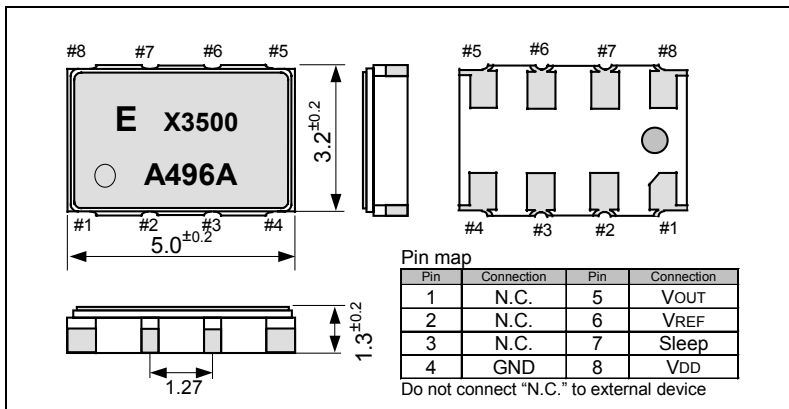
Item	Symbol	Specifications			Remarks
		Min.	Typ.	Max.	
Operating Voltage	V <sub>DD</sub>	2.7 V	3.0 V	3.3 V	V <sub>SS</sub> =0 V
Operating Temperature	T <sub>OPR</sub>	-20 °C		+80 °C	
Output Current	I <sub>VO</sub>	0		±100 μA	

●Electrical Characteristics

Item	Symbol	Specifications			Remarks
		Min.	Typ.	Max.	
Drive Frequency	f <sub>d</sub>		46.5 kHz 50.3 kHz		
Scale Factor	S <sub>o</sub>		0.67 mV/deg/s		
Limitical Scale Factor accuracy	S <sub>p</sub>			±5 %	T <sub>a</sub> =+25 °C
Scale Factor temperature Sensitivity	S <sub>pt</sub>			±5 %	Based +25 °C, V <sub>DD</sub> =3.0 V
Bias	V <sub>o</sub>	V <sub>r</sub> -50 mV	V <sub>r</sub>	V <sub>r</sub> +50 mV	T <sub>a</sub> =+25 °C
Reference Voltage	V <sub>r</sub>	1320 mV	1350 mV	1380 mV	T <sub>a</sub> =+25 °C
Defection Range	I	-100 deg/s		+100 deg/s	
Non Linearity	NI			±5 % FS	T <sub>a</sub> =+25 °C
Phase Delay	φ <sub>20</sub>		4 (Degree)		at 20Hz phase delay angle
Frequency Response	BW		200 Hz		phase delay angle 90 °
Residual Noise	r <sub>N</sub>			20 mV p-p	Using EPSON circuit
Cross Axes Sensitivity	CS			±5 %	T <sub>a</sub> =+25 °C
Power Consumption	In Operating	I <sub>op</sub>	1.7 mA		V <sub>o</sub> , V <sub>r</sub> : Output No load condition
	Sleep Mode	I <sub>sleep</sub>	1 mA		V <sub>o</sub> , V <sub>r</sub> : Output No load condition
Startup Time	T <sub>sta</sub>		240 ms		T <sub>a</sub> =+25 °C, V <sub>DD</sub> =3.0 V

**External Dimensions**

(Unit:mm)



**Footprint (Recommended)**

(Unit:mm)

