



# PROXIMITY SENSORS FOR TRUE WIRELESS STEREO (TWS)

## KEY BENEFITS

- Compact packages: reduces board space
- Low profile designs: down to 0.5 mm
- Design flexibility: single hole window design
- Proximity noise (sunlight) cancellation: up to 100 klx
- Low power mode: reduces overall power consumption



## APPLICATIONS

- To detect if the earpods are in the ear or not
- To detect if the earpods are in the case for charging

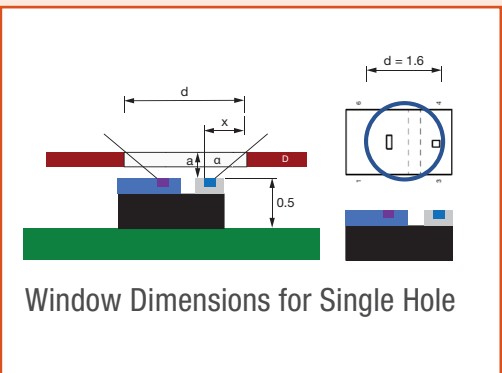


## PROXIMITY SENSOR COMPARISON

Reduction in Package Size	100 %	86 %	20 %
	VCNL36687S	VCNL36826S	VCNL36825T
Dimensions (L x W x H)	(3.05 x 2.0 x 1.0) mm	(2.55 x 2.05 x 1.0) mm	(2.0 x 1.25 x 0.5) mm
Smallest Window Diameter	2 mm	2 mm	1.6 mm
Supply Voltage	1.8 V compatible	2.6 V to 3.6 V	2.6 V to 3.6 V
VCSEL Voltage Range	2.6 V to 4.8 V	2.6 V to 3.6 V	2.6 V to 3.6 V
Low Power Mode	No	Yes	Yes
Lowest Possible Driving Current Option	7 mA	6 mA	10 mA
Lowest Possible Power Consumption <sup>(1)</sup>	165.5 $\mu$ A	6.00 $\mu$ A	6.63 $\mu$ A

**Note:** <sup>(1)</sup> Based on smallest VCSEL on / off period (PS\_Period) and smallest VCSEL driving current

## SINGLE HOLE DESIGN



Window Dimensions for Single Hole