

Smart Home - Proximity Sensor

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Smart Home - Proximity Sensor

VISHAY Components used for Notebook include:

- Power MOSFETS
 - Load and Signal Switches
 - Switching Diodes and Rectifiers
 - Capacitors
 - Resistors
 - NTC and PTC Thermistors
 - Inductors/EMI Filters
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Application Overview

To detect in close proximity the position and status of windows and doors is one main task of home security and home automation systems. It can guide home security, airconditions, heating and other functions of Smart Home systems. Low energy consumption, save operation and easy to mount are the main requirements for such systems. Reflective optical sensors are suited for this task. The Light source is invisible and not daylight sensitive. Cost and constructions are affordable and the detecting range is inside centimeter ranges.

Smart Home - Proximity Sensor : Interface, Status Indicator

LED

Product Name	Status	Description	Features	Package	Q-Level
VLMG1500-GS08		Ultrabright 0402 ChipLED	Viewing angle: extremely wide 130°	SMD 0402	

Smart Home - Proximity Sensor : Main Processor Unit, RTC Buffer

Storage Capacitor

Product Name	Status	Description	Features	Package	Q-Level
I55	NEW	vPolyTanTM Solid Tantalum SMD Chip Polymer Molded	Ultra Low ESR Low Leakage	SMD A,B,D,J,P,T,V	

Smart Home - Proximity Sensor : Power Converter, DC/DC

Storage Capacitor

Product Name	Status	Description	Features	Package	Q-Level
T55	NEW	vPolyTan™ Solid Tantalum SMD Chip Polymer Molded	Ultra Low ESR Low Leakage		

Storage Inductor

Product Name	Status	Description	Features	Package	Q-Level
IHLP-1212BZ-11	NEW	Low Profile, High Current IHLP® Inductors	Lowest DCR/uH Ultra Low buzz noise	SMD 1212	

Smart Home - Proximity Sensor : Sensor Unit, Optical Sensor

Reflective with analog output

Product Name	Status	Description	Features	Package	Q-Level
TCND5000	NEW	Reflective Optical Sensor with PIN Photodiode Output	Daylight Blocking Filter High Linearity	SMD	

Reflective with digital output

Product Name	Status	Description	Features	Package	Q-Level
VCNL3020	NEW	Fully Integrated Proximity Sensor with Infrared Emitter I2C Interface	Supply voltage VDD: 2.5 V to 3.6 V	SMD	

Smart Home - Proximity Sensor : Sensor Unit, Switch

IR-Switch

Product Name	Status	Description	Features	Package	Q-Level
SiA466EDJ	NEW	N-Channel 20V(D-S)MOSFET	LowOn Resistance <13mR High Frequency Switching	SMD PPAK SC-70-6L	
SiB488DK	NEW	N-Channel 12V(D-S)MOSFET	LowOn Resistance <25mR High Frequency Switching	SMD PPAK SC-75-6L	