



**Product Group:** Vishay Semiconductors, Opto

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The information below is also available in PDF format which can be read in Adobe® Acrobat® by clicking on this link: [http://www.vishay.com/marcom/hn/npi/npi\\_tcnd3000.pdf](http://www.vishay.com/marcom/hn/npi/npi_tcnd3000.pdf)

To access the product datasheets on the Vishay Web site, go to:

<http://www.vishay.com/doc?84606> (TCND3000)

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## New Sensor for Touch and Proximity Applications

### The News:

The TCND3000 is a Reflective Optical Sensor for applications, using HALIOS principle. It consists of an Infrared Emitter and a photo detector forming the optical sensing path. A second Infrared Emitter is used for the compensation

of disturbing ambient light according to the HALIOS principle.

The parameter of the Sensor are matched to the standard integrated circuit IC E909.01 from Chipmanufacturer ELMOS ( [www.elmos.de](http://www.elmos.de))



### Features:

- Operating under bright sunlight
- Provides touch and proximity function together with IC 909.01
- Compact design - no precise positioning of single opto components necessary
- SMD style package on PCB mold technology
- Peak sensitivity is 870 nm
- Suitable for IR reflow soldering
- Lead-free component, RoHS compliant

### The Key Applications:

Touch and / or Proximity detection of objects in:

- Mobile phones
- Automobiles
- Home appliances
- Cameras
- Switches in automotive applications
- Car radios / navigation systems

## The Perspective:

The TCND3000 is a miniature, SMD device, replacing mechanical switches can be used in a wide range of sensing applications. It's a low cost solution and easy to handle due to precise positioning of the optical path.

## Key Benefits:

- Detection through all kind of IR translucent materials
- Operating under bright ambient light

## Availability:

- Engineering Samples: Available,
- Production Quantities January / 2005

Lead times: 6 to 8 Weeks

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