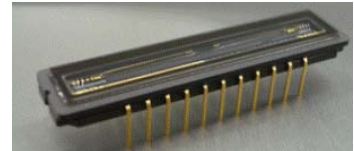


# TCD1205DG

2048-elements, embedded electronic shutter function, for barcode scanner.



The TCD1205DG is a high sensitive and low dark current 2048-elements linear image sensor. The sensor can be used for POS handscanner.

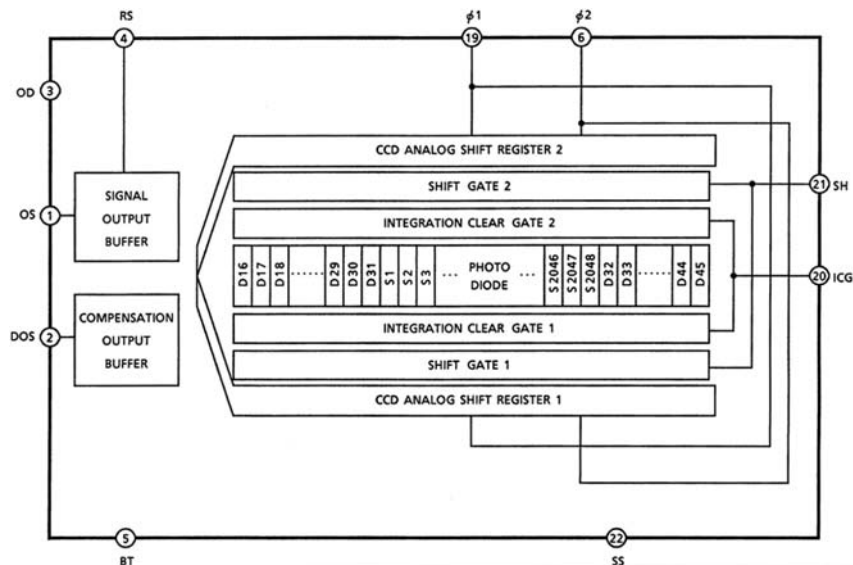
The device is operated by only 5V power supply, and mounted in 22-pin cerdip package with hermetic sealed optical glass window. The TCD1205DG has electronic shutter function (ICG).

Electronic shutter function can keep always output voltage constant that vary with the intensity of lights.

## ■ Features

- ▶ Number of Image Sensing Elements: 2048
- ▶ Image Sensing Element Size: 14 $\mu$ m by 200 $\mu$ m on 14 $\mu$ m centers
- ▶ Photo Sensing Region: High sensitive and low dark current pn photodiode
- ▶ Clock: 2 phase (5V)
- ▶ Internal Circuit: Electronic shutter function (ICG)
- ▶ Package: 22 pin cerdip

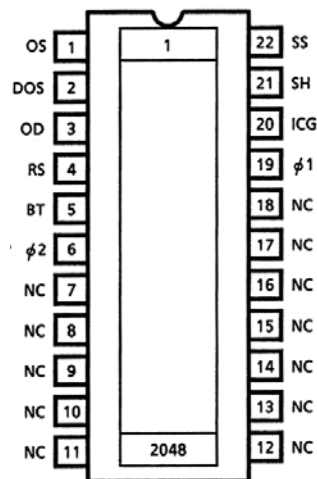
## Circuit Diagram



## Pin Names

| Pin No. | Symbol | Name                   |
|---------|--------|------------------------|
| 1       | OS     | Signal Output          |
| 2       | DOS    | Compensation Output    |
| 3       | OD     | Power                  |
| 4       | RS     | Reset Gate             |
| 5       | BT     | Boost Gate             |
| 6       | Ø2     | Clock (Phase 2)        |
| 7 to 18 | NC     | Non Connection         |
| 19      | Ø1     | Clock (Phase 1)        |
| 20      | ICG    | Integration Clear Gate |
| 21      | SH     | Shift Gate             |
| 22      | SS     | Ground                 |

## Pin Connections (top view)



» For further information about Toshiba Sensors, please visit <http://www.semicon.toshiba.co.jp/eng/product/sensor/index.html>

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