

# Preliminary YB8000 High-Performance Ambient Light Sensor

## Description

The YB8000 is an ultra-compact surface mount ambient light sensor IC for detecting ambient light illuminating intensity. The sensitivity is superior to that of a phototransistor, and exhibits little chip-to-chip variation. It has excellent spectral sensitivity to the illuminating light source and excellent output linearity. It is suitable in the power-saving control for back light display in mobile phones, notebook computers, PDAs, digital cameras and video cameras.

## Features

- Monolithic IC Containing Photodiode and Current Amplifier
- Wide Dynamic Range: 1 lux to 10,000 lux
- Excellent Output to Luminance Linearity
- Little Chip-to-Chip Variation in Output  
Light Current:  $I_l = 40 \mu\text{A}$  to  $55 \mu\text{A}$   
@EV = 100 lx
- Supply Voltage Range: 2.5V to 5.5V
- Standby Current: < 1  $\mu\text{A}$

## Applications

- Display Back Light Control in Car TV, DSC, Laptop, Mobile Phone, PMP, PDA, Portable DVD and Video Camera
- Auto Exposure and Flasher Control in Cameras

## Typical Application Circuit

Pin connection: Pin 1: Vcc (Supply voltage) ; Pin 2: GND ; Pin6: OUT

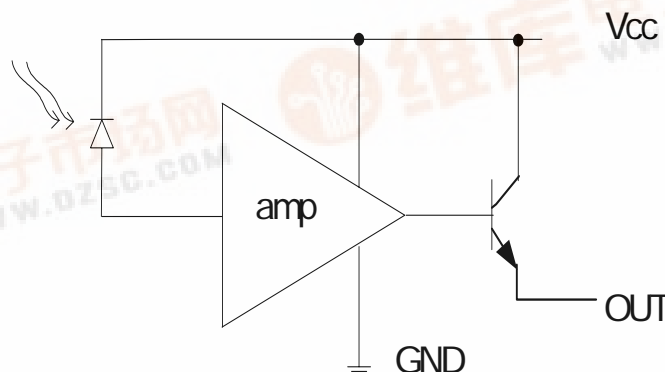


Figure 1. Functional Block Diagram