SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D. C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

January 2, 2004

Date of report (Date of earliest event reported)

ON Semiconductor Corporation

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 000-30419 (Commission File Number) 36-3840979 (I.R.S. Employer Identification Number)

ON Semiconductor Corporation 5005 E. McDowell Road Phoenix, Arizona (Address of principal executive offices)

85008 (Zip Code)

602-244-6600

(Registrant's telephone number, including area code)

Item 5. Other Events and Required FD Disclosure.

Attached to this Current Report as Exhibit 99 is a copy of a press release for ON Semiconductor Corporation dated January 2, 2004 titled "ON Semiconductor Files Shelf Registration Statement for Common Stock."

Item 7. <u>Financial Statements, Pro Forma</u> <u>Financial Information and Exhibits.</u>

- (a) Financial Statements of Businesses Acquired Not applicable.
- (b) Pro Forma Financial Information Not applicable.
- (c) Exhibits

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Exhibit No.	Description

News release for ON Semiconductor Corporation dated January 2, 2004 titled "ON Semiconductor Files Shelf Registration Statement for Common Stock."

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ON SEMICONDUCTOR CORPORATION (Registrant)

Date: January 2, 2004 By: /s/ DONALD A. COLVIN

Donald A. Colvin Chief Financial Officer

EXHIBIT INDEX

Exhibit No. Description

99 News release for ON Semiconductor Corporation dated January 2, 2004 titled "ON Semiconductor Files Shelf Registration Statement for Common Stock"

[COMPANY LOGO APPEARS HERE]

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ON Semiconductor Files Shelf Registration Statement for Common Stock

PHOENIX, Ariz. – Jan. 2, 2004 – ON Semiconductor (Nasdaq: ONNN) today announced that it has filed a shelf registration statement with the Securities and Exchange Commission (SEC) relating to the offer, from time to time, of up to 46.0 million shares of common stock by the company and up to 17.25 million shares of common stock by TPG Advisors II, Inc., a selling stockholder. The timing and amount of any offerings will depend on market and general business conditions. Unless otherwise described in connection with a particular offering, proceeds from the sale of the shares by the company will be used for general corporate purposes, which may include the repayment of indebtedness. The company will not receive any of the proceeds from the sale of shares by the selling stockholder.

A registration statement relating to these securities has been filed with the SEC but has not yet become effective. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This news release shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities law of any such state.

About ON Semiconductor

ON Semiconductor (Nasdaq: ONNN) offers an extensive portfolio of power- and data-management semiconductors and standard semiconductor components that address the design needs of today's sophisticated electronic products, appliances and automobiles. For more information visit ON Semiconductor's website at http://www.onsemi.com.

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This news release includes "forward-looking statements" as that term is defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact are statements that could be deemed forward-looking statements and are often characterized by the use of words such as "believes," "expects," "estimates," "projects," "may," "will," "intends," "plans," or "anticipates," or by discussions of strategy, plans or intentions. In this news release, forward-looking information relates to timing and amount of a common stock offering, use of proceeds from a common stock offering and similar matters. All forward-looking statements in this news release are made based on management's current expectations and estimates, which involve risks, uncertainties and other factors that could cause results to differ materially from those expressed in forward-looking statements. Among these factors are changes in overall economic conditions, the cyclical nature of the semiconductor industry, changes in demand for our products, changes in inventories at our customers and distributors, technological and product development risks, availability of raw materials, competitors' actions, pricing and gross margin pressures, loss of key customers, order cancellations or reduced bookings, changes in manufacturing yields, control of costs and expenses, significant litigation, risks associated with acquisitions and dispositions, risks associated with our substantial leverage and restrictive covenants in our debt agreements, risks associated with our international operations, the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally and risks involving environmental or other governmental regulation. Additional factors that could affect the company's future operating results are described in our Form 10-K for the year ended December 31, 2002 under the caption "Trends, Risks and Uncertainties" in th