

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ON SEMICONDUCTOR CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

36-3840979
(I.R.S. Employer
Identification No.)

5005 E. McDowell Road
Phoenix, Arizona 85008
(Address of Principal Executive Offices) (Zip Code)

ON SEMICONDUCTOR CORPORATION AMENDED AND RESTATED STOCK
INCENTIVE PLAN
(Full title of the plan)

George H. Cave, Esq.
ON SEMICONDUCTOR CORPORATION
5005 E. McDowell Road
Phoenix, Arizona 85008
(602) 244-5226

(Name, address, telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share(2)	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock	33,000,000 shares	\$6.775	\$223,575,000	\$25,622

- (1) Together with an indeterminate number of shares that may be necessary to adjust the number of shares reserved for issuance pursuant to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan as the result of a stock split, stock dividend or similar adjustment of the outstanding common stock of ON Semiconductor Corporation.
- (2) Estimated solely for the purposes of calculating the amount of the registration fee pursuant to Rules 457(c) and 457(h) under the Securities Act of 1933, as amended, on the basis of the average of the high and low prices of the registrant's common stock as reported on the NASDAQ Stock Market LLC (NASDAQ Global Select Market) on August 15, 2012.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

The sole purpose of this Registration Statement on Form S-8 is to register an additional 33,000,000 shares of ON Semiconductor Corporation (the “Company”) common stock, par value \$0.01, reserved for issuance under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan, as amended (the “Plan”). This increase was approved by the Company’s Board of Directors on March 21, 2012 and the Company’s shareholders on May 15, 2012. Pursuant to General Instruction E to Form S-8, the contents of the Company’s Registration Statement on Form S-8 filed with the Securities and Exchange Commission (“SEC”) on May 19, 2010 (File No. 333-166958) is hereby incorporated by reference in this Registration Statement.

Item 3. Incorporation of Documents by Reference.

The following documents have been filed by the Company with the SEC pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and are incorporated herein by reference, excluding in each case, information deemed furnished and not filed:

1. The Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2011.
2. The Company’s Quarterly Report on Form 10-Q for the fiscal quarters ended March 30, 2012 and June 29, 2012.
3. The Company’s Current Reports on Form 8-K filed January 26, 2012, February 17, 2012, March 12, 2012, March 22, 2012, April 18, 2012, May 17, 2012 and August 2, 2012.
4. The description of the Company’s common stock included in its registration statement on Form 8-A12G, filed April 21, 2000, and any amendment or report that it has filed (or will file after the date of this registration statement and prior to the termination of this offering) for the purpose of updating such description, including its Current Report on Form 8-K filed with the SEC on May 21, 2009.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this registration statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents, excluding, in each case, information deemed furnished and not filed. Any statement contained in this registration statement or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
5.1	Opinion of Snell & Wilmer L.L.P.
23.1	Consent of PricewaterhouseCoopers LLP
23.2	Consent of Snell & Wilmer L.L.P. (included in the opinion filed as Exhibit 5.1)
24.1	Powers of Attorney (contained within the signature page hereto)

In addition to those Exhibits shown above, the Company hereby incorporates the following Exhibits pursuant to Rule 411 of Regulation C promulgated under the Securities Act of 1933, as amended, by reference to the filings set forth below:

<u>Exhibit No.</u>	<u>Description</u>	<u>Previously Filed as Exhibit</u>	<u>File No.</u>	<u>Date Filed</u>
4.2	Amended and Restated Certificate of Incorporation of ON Semiconductor Corporation, as further amended through March 26, 2008	Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 28, 2008	000-30419	5/7/08
4.3	Amended and Restated Bylaws of ON Semiconductor Corporation	Exhibit 3.2 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2011	000-30419	2/22/12
4.4	Specimen of share certificate of Common Stock, \$.01 par value, ON Semiconductor Corporation	Exhibit 4.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003	000-30419	3/10/04
4.5	ON Semiconductor Corporation Amended and Restated Stock Incentive Plan	Exhibit 4.1 to the Company's Registration Statement on Form S-8	333-166958	5/19/10
4.6	First Amendment to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan	Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 29, 2012	000-30419	8/3/12

SIGNATURES

THE REGISTRANT. Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Phoenix, State of Arizona, on August 17, 2012.

ON SEMICONDUCTOR CORPORATION

By: /s/ Keith D. Jackson
Keith D. Jackson
President and Chief Executive Officer

POWER OF ATTORNEY

The officers and directors of ON Semiconductor Corporation, whose signatures appear below, hereby constitute and appoint Keith D. Jackson, Donald A. Colvin and George H. Cave, and each of them, their true and lawful attorneys and agents, with full power of substitution, each with power to act alone, to sign and execute on behalf of the undersigned any amendment or amendments to this registration statement on Form S-8, and each of the undersigned does hereby ratify and confirm all that each of said attorney and agent, or their or his substitutes, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ Keith D. Jackson</u> (Keith D. Jackson)	President, Chief Executive Officer and Director (Principal Executive Officer)	August 17, 2012
<u>/s/ Donald A. Colvin</u> (Donald A. Colvin)	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	August 17, 2012

<u>/s/ J. Daniel McCranie</u> (J. Daniel McCranie)	Chairman of the Board of Directors	August 17, 2012
<u>/s/ Atsushi Abe</u> (Atsushi Abe)	Director	August 17, 2012
<u>/s/ Curtis J. Crawford</u> (Curtis J. Crawford)	Director	August 17, 2012
<u>/s/ Bernard L. Han</u> (Bernard L. Han)	Director	August 17, 2012
<u>/s/ Emmanuel T. Hernandez</u> (Emmanuel T. Hernandez)	Director	August 17, 2012
<u>/s/ Phillip D. Hester</u> (Phillip D. Hester)	Director	August 17, 2012
<u>/s/ Daryl A. Ostrander</u> (Daryl A. Ostrander)	Director	August 17, 2012
<u>/s/ Teresa M. Ressel</u> (Teresa M. Ressel)	Director	August 17, 2012

INDEX TO EXHIBITS

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August 16, 2012

ON Semiconductor Corporation
5005 E. McDowell Road
Phoenix, Arizona 85008

Ladies and Gentlemen:

We have acted as counsel to ON Semiconductor Corporation, a Delaware corporation (the "Company"), in connection with the Company's preparation and filing with the Securities and Exchange Commission (the "Commission") of a registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), relating to an amendment to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (the "Plan"). The Registration Statement relates to the issuance and sale from time to time, pursuant to Rule 415 of the General Rules and Regulations promulgated under the Securities Act, of up to 33,000,000 shares of common stock, \$.01 par value, of the Company (the "Offered Shares").

This opinion is delivered in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In rendering the opinions set forth herein, we have examined the (i) Registration Statement and exhibits thereto; (ii) Amended and Restated Certificate of Incorporation of the Company as currently in effect; (iii) Amended and Restated Bylaws of the Company as currently in effect; (iv) resolutions adopted by the Board of Directors of the Company relating to the filing of the Registration Statement and the offering and sale of the Offered Shares, and (v) specimen certificate for the Offered Shares as incorporated by reference into the Registration Statement. We have also examined such other documents and records and have made such other investigation as we have deemed necessary or appropriate to render the opinions set forth below. As to any facts material to the opinions expressed herein that were not independently established or verified by us, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others.

We have assumed the legal competency and capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as electronic, certified, conformed, photostatic or facsimile copies and the authenticity of the originals of such latter documents.

Based upon the foregoing and in reliance thereon, and subject to the assumptions, qualifications and limitations set forth herein, we are of the opinion that when the Registration Statement shall have become effective, and the Offered Shares shall have been issued and delivered in accordance with the Plan, including receipt of the purchase price therefor as contemplated in the Plan, the Offered Shares will be validly issued, fully paid and

non-assessable. For purposes of this opinion, we have assumed that (i) the Offered Shares that underlie awards under the Plan that are outstanding on the date hereof or that are available for issuance on the date hereof have been or will be allocated to the Plan in the records of the Company and its transfer agent, (ii) in all cases the consideration for each Offered Share is not less than the par value thereof, and (iii) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the Delaware General Corporation Law. This opinion relates only to original issuance securities.

We are admitted to practice in the State of Arizona and we do not express any opinion as to the laws of any jurisdiction other than the laws of the State of Arizona, the statutory provisions of the Delaware General Corporation Law and the laws of the United States of America. As to matters of the Delaware General Corporation Law, we have based our opinion solely upon our examination of such laws as reported in standard, unofficial compilations. We have not obtained opinions of counsel licensed to practice in jurisdictions other than the State of Arizona. The opinions herein are based upon the facts in existence and laws in effect on the date hereof and we expressly disclaim any obligation to update, revise, or supplement our opinions herein, regardless of whether changes in such facts or laws come to our attention after the delivery hereof.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement. In giving this consent, we do not concede that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

This opinion letter is given to you solely for use in connection with the issuance of the Offered Shares in accordance with the Registration Statement and is not to be relied on for any other purpose. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise as to any other matters relating to the Company, the Offered Shares, or the Registration Statement.

Very truly yours,

/s/ Snell & Wilmer L.L.P.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 22, 2012 relating to the financial statements, financial statement schedules and the effectiveness of internal control over financial reporting, which appears in ON Semiconductor Corporation's Annual Report on Form 10-K for the year ended December 31, 2011.

/s/ PricewaterhouseCoopers LLP

Phoenix, Arizona

August 17, 2012