

**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 2000 EMPLOYEE STOCK PURCHASE PLAN
(Full title of the plan)

George H. Cave, Esq.
ON SEMICONDUCTOR CORPORATION
5005 E. McDowell Road
Phoenix, Arizona 85008
(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	<input checked="checked" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>

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	6,500,000 shares	\$6.02	\$39,130,000	\$2,184

- (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 2000 Employee Stock Purchase Plan as the result of a stock split, stock dividend or similar adjustment of the outstanding common stock of ON Semiconductor Corporation. In addition, pursuant to Rule 416(c) under the Securities Act of 1933, as amended, this registration statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.
- (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 May 18, 2009.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I of Form S-8 will be sent or given to each employee who is eligible to participate in the On Semiconductor Corporation 2000 Employee Stock Purchase Plan (the "Plan"), as required by Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act"). Such documents need not be filed with the Securities and Exchange Commission (the "SEC") either as part of this registration statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. These documents and the documents incorporated by reference into this registration statement pursuant to Item 3 of Part II of this registration statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents have been filed by ON Semiconductor Corporation (the "Company") or by the Plan 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, 2008.
2. The Plan's Annual Report on Form 11-K for the fiscal year ended December 31, 2008.
3. The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 3, 2009.
4. The Company's Current Reports on Form 8-K filed January 9, 2009, February 4, 2009, February 11, 2009, March 2, 2009, March 27, 2009, and May 21, 2009.
5. 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 or the Plan 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 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 102(b)(7) of the Delaware General Corporation Law (“DGCL”) authorizes a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of the director’s fiduciary duty. While this statute does not change the directors’ duty of care, it enables corporations to limit available relief to equitable remedies such as injunction or rescission. The statute has no effect on a director’s duty of loyalty or liability for acts or omissions not in good faith or involving intentional misconduct or knowing violations of law, illegal payment of dividends or stock redemptions or repurchases, or for any transaction from which the director derives an improper personal benefit. Article Sixteenth of the Company’s Amended and Restated Certificate of Incorporation eliminates the personal liability of each of its directors to the full extent permitted by the DGCL Section 102(b)(7), as it may be amended or supplemented.

Subsection (a) of Section 145 of the DGCL empowers a corporation to indemnify any present or former director, officer, employee or agent of the corporation, or any individual serving at the corporation’s request as a director, officer, employee or agent of another enterprise, who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding provided that such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any present or former director, officer, employee or agent of the corporation, or any individual serving at the corporation’s request as a director, officer, employee or agent of another enterprise, who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation, against expenses (including attorneys’ fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or

suit provided that such director, officer, employee or agent acted in good faith and in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which such director, officer, employee or agent shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) or in the defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection therewith and that indemnification and advancement of expenses provided by or granted pursuant to Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled.

Article Eleventh of the Company's Amended and Restated Certificate of Incorporation provides that the Company shall indemnify all persons whom it may indemnify pursuant to Section 145 of the DGCL, to the full extent permitted by Section 145 of the DGCL, as amended from time to time.

Section 145(g) of the DGCL permits a corporation to purchase and maintain insurance on behalf of a director, officer, employee or agent of the corporation, or that was or is serving at the request of the corporation as a director, officer, employee or agent for another enterprise, against any liability asserted against such person and incurred by such person in any such capacity, whether or not the corporation would otherwise have the power to indemnify such person against liability. The Company carries insurance policies that cover the Company and its individual directors and officers against certain liabilities, including liabilities under the Securities Act. Employment agreements with certain of our officers, entitle the particular officer to the same directors and officers' liability insurance coverage that the Company provides generally to its other directors and officers as such policies may be amended from time to time.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
4.1	ON Semiconductor Corporation 2000 Employee Stock Purchase Plan (as amended and restated as of May 20, 2009)
5.1	Opinion of Snell & Wilmer L.L.P.

- 5.2 Consent of Snell & Wilmer L.L.P. (included in the opinion filed as Exhibit 5.1)
- 23.1 Consent of PricewaterhouseCoopers LLP
- 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 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 31, 2008	000-30419	5/7/08
4.3	Amended and Restated Bylaws of ON Semiconductor Corporation	Exhibit 3.1 to the Company's Current Report on Form 8-K dated November 19, 2007	000-30419	11/19/07
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

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and

price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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 May 21, 2009.

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 and Chief Executive Officer)	Principal Executive Officer and Director	May 21, 2009
<u>/s/ Donald A. Colvin</u> (Donald A. Colvin, Executive Vice President, Chief Financial Officer and Treasurer)	Principal Financial Officer and Principal Accounting Officer	May 21, 2009
<u>/s/ J. Daniel McCranie</u> (J. Daniel McCranie)	Chairman of the Board of Directors	May 21, 2009
<u>/s/ Francis P. Barton</u> (Francis P. Barton)	Director	May 21, 2009

/s/ Curtis J. Crawford
(Curtis J. Crawford)

Director

May 21, 2009

/s/ Emmanuel T. Hernandez
(Emmanuel T. Hernandez)

Director

May 21, 2009

/s/ Phillip D. Hester
(Phillip D. Hester)

Director

May 21, 2009

/s/ Daryl Ostrander
(Daryl Ostrander)

Director

May 21, 2009

/s/ Robert H. Smith
(Robert H. Smith)

Director

May 21, 2009

THE PLAN. Pursuant to the requirements of the Securities Act of 1933, the trustees (or other persons who administer the employee benefit plan) have 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 May 21, 2009.

ON SEMICONDUCTOR 2000 EMPLOYEE
STOCK PURCHASE PLAN

By: /s/ Colleen McKeown

Colleen McKeown

Senior Vice President of Human Resources &
Communications

INDEX TO EXHIBITS

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5.2	Consent of Snell & Wilmer L.L.P. (included in the opinion filed as Exhibit 5.1)
23.1	Consent of PricewaterhouseCoopers LLP
24.1	Powers of Attorney (contained within the signature page hereto)

ON SEMICONDUCTOR CORPORATION
2000 EMPLOYEE STOCK PURCHASE PLAN
(as amended and restated as of May 20, 2009)

1. **PURPOSE.** The purpose of this ON Semiconductor Corporation 2000 Employee Stock Purchase Plan (the "Plan") is to encourage stock ownership by eligible employees of ON Semiconductor Corporation (formerly known as SCG Holding Corporation) (the "Company") and its Subsidiaries and thereby provide employees with an incentive to contribute to the profitability and success of the Company. The Plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code and will be maintained for the exclusive benefit of eligible employees of the Company and its Subsidiaries.

2. **DEFINITIONS.** For purposes of the Plan, in addition to the terms defined in Section 1, the following terms are defined:

- (a) "Board" means the Board of Directors of the Company.
- (b) "Cash Account" means the account maintained on behalf of a Participant by the Company for the purpose of holding cash contributions withheld from payroll pending investment in Stock.
- (c) "Code" means the Internal Revenue Code of 1986, as amended.
- (d) "Custodian" means Solomon Smith Barney or any successor or replacement appointed by the Board or its delagatee under Section 3(a).
- (e) "Earnings" means a Participant's salary or wages, including bonuses, for services performed for the Company and its Subsidiaries and received by a Participant for services rendered during an Offering Period.
- (f) "Fair Market Value" means the closing price of the Stock on the relevant date as reported on NASDAQ (or any national securities exchange or quotation system on which the Stock is then listed), or if there were no sales on that date the closing price on the next preceding date for which a closing price was reported; provided, however, that for any Offering Period beginning on the IPO Date, the Fair Market Value of the Stock on the first day of such Offering Period shall be deemed to be the price at which the Company's Stock is offered under its initial public offering of Stock.
- (g) "IPO Date" means the date on which the Company's initial public offering of Stock is consummated.
- (h) "Offering Period" means the period beginning on the IPO Date and ending on the last day of the next calendar quarter, and every three-month period thereafter. For

Participants who do not reside in the United States, if the day on which the Company receives approval by the applicable foreign jurisdiction to offer common stock to Participants residing in that jurisdiction is later than the day on which the Company's initial public offering becomes effective, the Offering Period means the period beginning on the day on which the Company receives approval by the applicable foreign jurisdiction to offer common stock to such Participants and ending on the last day of the next calendar quarter, and every three-month period thereafter.

(i) "Participant" means an employee of the Company or a Subsidiary who is participating in the Plan.

(j) "Purchase Right" means a Participant's option to purchase Stock that is deemed to be outstanding during an Offering Period. A Purchase Right represents an "option" under Section 423 of the Code.

(k) "Stock" means the common stock of the Company.

(l) "Stock Account" means the account maintained on behalf of the Participant by the Custodian for the purpose of holding Stock acquired under the Plan.

(m) "Subsidiary" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company if each of the corporations (other than the last corporation in the unbroken chain) owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in the chain as set forth in Code Section 424(f).

3. ADMINISTRATION.

(a) Board Administration. The Plan will be administered by the Board. The Board may delegate its administrative duties and authority (other than its authority to amend the Plan) to any Board committee or to any officers or employees or committee thereof as the Board may designate (in which case references to the Board will be deemed to refer to the administrator to which such duties and authority have been delegated). The Board will have full authority to adopt, amend, suspend, waive, and rescind rules and regulations and appoint agents as it deems necessary or advisable to administer the Plan, to correct any defect or supply any omission or reconcile any inconsistency in the Plan and to construe and interpret the Plan and rules and regulations thereunder, to furnish to the Custodian such information as the Custodian may require, and to make all other decisions and determinations under the Plan (including determinations relating to eligibility). No person acting in connection with the administration of the Plan will, in that capacity, participate in deciding any matter relating to his or her participation in the Plan.

(b) The Custodian. The Custodian will act as custodian under the Plan, and will perform duties under the Plan and in any agreement between the Company and the Custodian. The Custodian will establish and maintain Participants Stock Accounts and any subaccounts as may be necessary or desirable to administer the Plan.

(c) Waivers. The Board may waive or modify any requirement that a notice or election be made or filed under the Plan a specified period in advance on an individual case or by adopting a rule or regulation under the Plan, without amending the Plan.

(d) Other Administrative Provisions. The Company will furnish information from its records as directed by the Board, and such records, including a Participant's Earnings, will be conclusive on all persons unless determined by the Board to be incorrect. Each Participant and other person claiming benefits under the Plan must furnish to the Company in writing an up-to-date mailing address and any other information as the Board or Custodian may reasonably request. Any communication, statement, or notice mailed with postage prepaid to any such Participant or other person at the last mailing address filed with the Company will be deemed sufficiently given when mailed and will be binding upon the named recipient. The Plan will be administered on a reasonable and nondiscriminatory basis and uniform rules will apply to all persons similarly situated. All Participants will have equal rights and privileges (subject to the terms of the Plan) with respect to Purchase Right outstanding during any given Offering Period in accordance with Code Section 423(b)(5).

4. STOCK SUBJECT TO PLAN. Subject to adjustment as provided below, the total number of shares of Stock reserved and available for issuance or which may be otherwise acquired upon exercise of Purchase Rights under the Plan will be 15,000,000. If, at the end of any Offering Period, the number of shares of Stock with respect to which Purchase Rights are to be exercised exceeds the number of shares of Stock then available under the Plan, the Board shall make a pro rata allocation of the shares of Stock remaining available for purchase in as uniform a manner as shall be practicable and as it shall determine to be equitable. Any shares of Stock delivered by the Company under the Plan may consist, in whole or in part, of authorized and unissued shares or treasury shares or shares of Stock purchased on the open market. The number and kind of such shares of Stock subject to the Plan will be proportionately adjusted, as determined by the Board, in the event of any extraordinary dividend or other distribution, recapitalization, forward or reverse split, reorganization, merger, consolidation, spin-off, combination, repurchase, or share exchange, or other similar corporate transaction or event affecting the Stock.

5. ENROLLMENT AND CONTRIBUTIONS.

(a) Eligibility. An employee of the Company or any Subsidiary designated by the Board may be enrolled in the Plan for any Offering Period if such employee is employed by the Company or a Subsidiary authorized to participate in the Plan on the first day of the Offering Period, unless one of the following applies to the employee:

- (i) such person has been employed by the Company or a Subsidiary less than 90 days; or
- (ii) such person is customarily employed by the Company or a Subsidiary for 20 hours or less a week; or

(iii) such person is customarily employed by the Company or a Subsidiary for not more than five months in any calendar year;

(iv) such person would, immediately upon enrollment, be deemed to own, for purposes of Section 423(b)(3) of the Code, an aggregate of five percent or more of the total combined voting power or value of all outstanding shares of all classes of the Stock of the Company or any Subsidiary.

Notwithstanding the above, solely for purposes of the first Offering Period under the Plan, an employee who is employed by the Company or a Subsidiary on the first day of such Offering Period and who is otherwise eligible to participate in the Plan shall not be required to satisfy the 90 day employment period specified in 5(a)(i) above.

The Company will notify an employee of the date as of which he or she is eligible to enroll in the Plan, and will make available to each eligible employee the necessary enrollment forms. Notwithstanding the above, any individual who is employed by the Company or a Subsidiary designated by the Board and who is working outside of the United States shall not be eligible to participate in the Plan if the laws of the country in which the employee is working makes the offer of the Purchase Right or the delivery of Stock under the Plan impractical. Additionally, the offer of the Purchase Right and the delivery of Stock under the Plan shall be effective for any individual who is employed by the Company or a Subsidiary and who is working outside of the United States only after the Company has complied with the applicable laws of the country in which the employee is working.

(b) Initial Enrollment. An employee who is eligible under Section 5(a) (or who will become eligible on or before a given Offering Period) may, after receiving current information about the Plan, initially enroll in the Plan by executing and filing with the Company a properly completed enrollment form, including the employee's election as to the rate of payroll contributions for the Offering Period. To be effective for any Offering Period, such enrollment form must be filed at least two weeks (or such other period determined by the Board) preceding such Offering Period.

(c) Automatic Re-enrollment for Subsequent Offering Periods. A Participant whose enrollment in, and payroll contributions under, the Plan continues throughout a Offering Period will automatically be re-enrolled in the Plan for the next Offering Period unless (i) the Participant terminates enrollment before the next Offering Period in accordance with Section 7(a), or (ii) the Participant is ineligible to participate under Section 5(a). The initial rate of payroll contributions for a Participant who is automatically re-enrolled for a Offering Period will be the same as the rate of payroll contribution in effect at the end of the preceding Offering Period, unless the Participant files a new enrollment form designating a different rate of payroll contributions and such new enrollment form is received no later than two weeks (or such other period determined by the Board) prior to the beginning of the next Offering Period.

(d) Payroll Contributions. A Participant will make contributions under the Plan by means of payroll deductions from each payroll period which ends during the Offering

Period, at the rate elected by the Participant in his or her enrollment form in effect for that Offering Period (except that such rate may be changed during the Offering Period to the extent permitted below). The rate of payroll contributions elected by a Participant may not be less than one percent (1%) nor more than ten percent (10%) of the Participant's Earnings for each payroll period, and only whole percentages may be elected; provided, however, that the Board may specify a lower minimum rate and higher maximum rate, subject to Section 8(c). Notwithstanding the above, a Participant's payroll contributions will be adjusted downward by the Company as necessary to ensure that the limit on the amount of Stock purchased for an Offering Period set forth in Section 6(a)(iii) is not exceeded. A Participant may elect to increase, decrease, or discontinue payroll contributions for a future Offering Period by filing a new enrollment form designating a different rate of payroll contributions, which form must be received at least two weeks (or such other period determined by the Board) prior to the beginning of an Offering Period to be effective for that Offering Period. In addition, a Participant may elect to discontinue payroll contributions during an Offering Period by filing a new enrollment form, such change to be effective for the next payroll after the Participant's new enrollment form is received.

(e) Crediting Payroll Contributions to Cash Accounts. All payroll contributions by a Participant under the Plan will be credited to a Cash Account maintained by the Company on behalf of the Participant. The Company will credit payroll contributions to each Participant's Cash Account as soon as practicable after the contributions are withheld from the Participant's Earnings.

(f) No Interest on Cash Accounts. No interest will be credited or paid on cash balances in Participant's Cash Accounts pending investment in Stock.

6. PURCHASES OF STOCK.

(a) Purchase Rights. Enrollment in the Plan for any Offering Period by a Participant will constitute a grant by the Company of a Purchase Right to such Participant for such Offering Period. Each Purchase Right will be subject to the following terms:

(i) The purchase price of each share of Stock purchased for each Offering Period will equal 85% of the lesser of the Fair Market Value of a share of Stock on the first day of an Offering Period, or the Fair Market Value of a share of Stock on the last day of an Offering Period.

(ii) Except as limited in (iii) below, the number of shares of Stock that may be purchased upon exercise of the Purchase Right for a Offering Period will equal the number of shares (including fractional shares) that can be purchased at the purchase price specified in Section 6(a)(i) with the aggregate amount credited to the Participant's Cash Account as of the last day of an Offering Period.

(iii) The number of shares of Stock subject to a Participant's Purchase Right for any Offering Period will not exceed the lesser of: (1) 500 shares of Stock, or (2) the number derived by dividing \$6,250 by 100% of the Fair Market Value of one share of Stock on the first day of the Offering Period for the Offering Period.

(iv) The Purchase Right will be automatically exercised on the last day of the Offering Period.

(v) Payments by a Participant for Stock purchased under a Purchase Right will be made only through payroll deduction in accordance with Section 5(d) and (e).

(vi) The Purchase Right will expire on the earlier of the last day of the Offering Period or the date on which the Participant's enrollment in the Plan terminates.

(b) Purchase of Stock. At or as promptly as practicable after the last day of an Offering Period, amounts credited to each Participant's Cash Account will be applied by the Company to purchase Stock, in accordance with the terms of the Plan. Shares of Stock will be purchased from the Company or in the open market, as the Board determines. The Company will aggregate the amounts in all Cash Accounts when purchasing Stock, and shares purchased will be allocated to each Participant's Stock Account in proportion to the cash amounts withdrawn from such Participant's Cash Account. After completing purchases for each Offering Period (which will be completed in not more than 15 calendar days after the last day of an Offering Period), all shares of Stock so purchased for a Participant will be credited to the Participant's Stock Account.

(c) Dividend Reinvestment; Other Distributions. Cash dividends on any Stock credited to a Participant's Stock Account will be automatically reinvested in additional shares of Stock; such amounts will not be available in the form of cash to Participants. The Company will aggregate all purchases of Stock in connection with dividend reinvestment for a given dividend payment date. Purchases of Stock for purposes of dividend reinvestment will be made as promptly as practicable (but not more than 15 calendar days) after a dividend payment date. The purchases will be made directly from the Company at 100% of the Fair Market Value of a share of Stock on the dividend payment date or on the open market. Any shares of Stock distributed as a dividend or distribution in respect of shares of Stock or in connection with a split of the Stock credited to a Participant's Stock Account will be credited to such Account.

(d) Withdrawals and Transfers. Shares of Stock may be withdrawn from a Participant's Stock Account, in which case one or more certificates for whole shares may be issued in the name of, and delivered to, the Participant, with such Participant receiving cash in lieu of fractional shares based on the Fair Market Value of a share of Stock on the day preceding the date of withdrawal. Alternatively, whole shares of Stock may be withdrawn from a Participant's Stock Account by means of a transfer to a broker-dealer or financial institution that maintains an account for the Participant, together with the transfer of cash in lieu of fractional shares based on the Fair Market Value of a share of Stock on the day preceding the date of withdrawal. Participants may not designate any other person to receive shares of Stock withdrawn or transferred under the Plan. A

Participant seeking to withdraw or transfer shares of Stock must give instructions to the Custodian in such manner and form as may be prescribed by the Custodian, which instructions will be acted upon as promptly as practicable. Withdrawals and transfers will be subject to any fees imposed in accordance with Section 8(a).

(e) Excess Account Balances. If any amounts remain in a Cash Account following the date on which the Company purchases Stock for an Offering Period as a result of the limitation set forth in Section 6(a)(iii) or for any other reason, such amounts will be returned to the Participant as promptly as practicable.

7. TERMINATION AND DISTRIBUTIONS

(a) Termination of Enrollment. A Participant's enrollment in the Plan will terminate upon (i) the beginning of any payroll period or Offering Period that begins after he or she files a written notice of termination of enrollment with the Company, provided that such Participant will continue to be deemed to be enrolled with respect to any completed Offering Period for which purchases have not been completed, (ii) such time as the Participant becomes ineligible to participate under Section 5(a) of the Plan, or (iii) the termination of the Participant's employment by the Company and its Subsidiaries. An employee whose enrollment in the Plan terminates may again enroll in the Plan as of any subsequent Offering Period if he or she satisfies the eligibility requirements of Section 5(a) as of such Offering Period. A Participant's election to discontinue payroll contributions will not constitute a termination of enrollment.

(b) Distribution. As soon as practicable after a Participant's enrollment in the Plan terminates, amounts in the Participant's Cash Account which resulted from payroll contributions will be repaid to the Participant. The Custodian will continue to maintain the Participant's Stock Account for the Participant until the earlier of such time as the Participant directs the sale of all Stock in the Account, withdraws, or transfers all Stock in the Account, or one year after the Participant ceases to be employed by the Company and its Subsidiaries. If a Participant's termination of enrollment results from his or her death, all amounts payable will be paid to his or her estate.

8. GENERAL

(a) Costs. Costs and expenses incurred in the administration of the Plan and maintenance of Accounts will be paid by the Company, to the extent provided in this Section 8(a). Any brokerage fees and commissions for the purchase of Stock under the Plan (including Stock purchased upon reinvestment of dividends and distributions) will be paid by the Company, but any brokerage fees and commissions for the sale of Stock under the Plan by a Participant will be borne by such Participant. The rate at which such fees and commissions will be charged to Participants will be determined by the Custodian or any broker-dealer used by the Custodian (including an affiliate of the Custodian), and communicated from time to time to Participants. In addition, the Custodian may impose or pass through a reasonable fee for the withdrawal of Stock in the form of stock certificates (as permitted under Section 6(d)), and reasonable fees for other services unrelated to the purchase of Stock under the Plan, to the extent approved in writing by the Company and communicated to Participants.

(b) Statements to Participants. The Participant's statement will reflect payroll contributions, purchases, sales, and withdrawals and transfers of shares of Stock and other Plan transactions by appropriate adjustments to the Participant's Accounts. The Custodian will, not less frequently than quarterly, provide or cause to be provided a written statement to the Participant showing the transactions in his or her Stock Account and the date thereof, the number of shares of Stock credited or sold, the aggregate purchase price paid or sales price received, the purchase or sales price per share, the brokerage fees and commissions paid (if any), the total shares held for the Participant's Stock Account (computed to at least three decimal places), and such other information as agreed to by the Custodian and the Company.

(c) Compliance with Section 423. It is the intent of the Company that this Plan complies in all respects with applicable requirements of Section 423 of the Code and regulations thereunder. Accordingly, if any provision of this Plan does not comply with such requirements, such provision will be construed or deemed amended to the extent necessary to conform to such requirements.

9. GENERAL PROVISIONS.

(a) Compliance With Legal and Other Requirements. The Plan, the granting and exercising of Purchase Rights hereunder, and the other obligations of the Company and the Custodian under the Plan will be subject to all applicable federal and state laws, rules, and regulations, and to such approvals by any regulatory or governmental agency as may be required. The Company may, in its discretion, postpone the issuance or delivery of Stock upon exercise of Purchase Rights until completion of such registration or qualification of such Stock or other required action under any federal or state law, rule, or regulation, or the laws of any country in which employees of the Company and a Subsidiary who are nonresident aliens and who are eligible to participate reside, or other required action with respect to any automated quotation system or stock exchange upon which the Stock or other Company securities are designated or listed, or compliance with any other contractual obligation of the Company, as the Company may consider appropriate. In addition, the Company may require any Participant to make such representations and furnish such information as it may consider appropriate in connection with the issuance or delivery of Stock in compliance with applicable laws, rules, and regulations, designation or listing requirements, or other contractual obligations.

(b) Limits on Encumbering Rights. No right or interest of a Participant under the Plan, including any Purchase Right, may be pledged, encumbered, or hypothecated to or in favor of any party, subject to any lien, obligation, or liability of such Participant, or otherwise assigned, transferred, or disposed of except pursuant to the laws of descent or distribution, and any right of a Participant under the Plan will be exercisable during the Participant's lifetime only by the Participant.

(c) No Right to Continued Employment. Neither the Plan nor any action taken hereunder, including the grant of a Purchase Right, will be construed as giving any employee the right to be retained in the employ of the Company or any of its Subsidiaries, nor will it interfere in any way with the right of the Company or any of its Subsidiaries to terminate any employee's employment at any time.

(d) Taxes. The Company or any Subsidiary is authorized to withhold from any payment to be made to a Participant, including any payroll and other payments not related to the Plan, amounts of withholding and other taxes due in connection with any transaction under the Plan, and a Participant's enrollment in the Plan will be deemed to constitute his or her consent to such withholding. In addition, Participants may be required to advise the Company of sales and other dispositions of Stock acquired under the plan in order to permit the Company to comply with tax laws and to claim any tax deductions to which the Company may be entitled with respect to the Plan. This provision and other Plan provisions do not set forth an explanation of the tax consequences to Participants under the Plan. A brief summary of the tax consequences will be included in disclosure documents to be separately furnished to Participants.

(e) Changes to the Plan. The Board may amend, alter, suspend, discontinue, or terminate the Plan without the consent of shareholders or Participants, except that any such action will be subject to the approval of the Company's shareholders within one year after such Board action if such shareholder approval is required by any federal or state law or regulation or the rules of any automated quotation system or stock exchange on which the Stock may then be quoted or listed, or if such shareholder approval is necessary in order for the Plan to continue to meet the requirements of Section 423 of the Code, and the Board may otherwise, in its discretion, determine to submit other such actions to shareholders for approval. However, without the consent of an affected Participant, no amendment, alteration, suspension, discontinuation, or termination of the Plan may materially and adversely affect the rights of such Participant with respect to outstanding Purchase Rights relating to any Offering Period that has been completed prior to such Board action. The foregoing notwithstanding, upon termination of the Plan the Board may (i) elect to terminate all outstanding Purchase Rights at such time as the Board may designate, and all amounts contributed to the Plan which remain in a Participant's Cash Account will be returned to the Participant (without interest) as promptly as practicable, or (ii) shorten the Offering Period to such period determined by the Board and use amounts credited to a Participant Cash Account to purchase Stock.

(f) No Rights to Participate; No Shareholder Rights. No Participant or employee will have any claim to participate in the Plan with respect to Offering Periods that have not commenced, and the Company will have no obligation to continue the Plan. No Purchase Right will confer on any Participant any of the rights of a shareholder of the Company unless and until Stock is duly issued or transferred and delivered to the Participant (or credited to the Participant's Stock Account).

(g) Fractional Shares. Unless otherwise determined by the Board, purchases of Stock under the Plan executed by the Custodian may result in the crediting of fractional shares of Stock to the Participant's Stock Account. Such fractional shares will be

computed to at least three decimal places. Fractional shares will not, however, be issued by the Company, and certificates representing fractional shares will not be delivered to Participants under any circumstances.

(h) Plan Year. The Plan will operate on a plan year that begins on January 1 and ends December 31 in each year.

(i) Governing Law. The validity, construction, and effect of the Plan and any rules and regulations relating to the Plan will be determined in accordance with the laws of the State of Arizona, without giving effect to principles of conflicts of laws, and applicable federal law.

(j) Effective Date. The Plan will become effective on the IPO Date, subject to the Plan being approved by shareholders of the Company, at a meeting by a vote sufficient to meet the requirements of Section 423(b)(2) of the Code. If the Plan is not approved in accordance with Section 423(b)(2) of the Code, each Participant's Purchase Right shall be void and amounts credited to the Participant's Cash Account shall be promptly returned to the Participant.

May 21, 2009

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 the Amended and Restated ON Semiconductor Corporation 2000 Employee Stock Purchase 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 6,500,000 shares of common stock, \$.01 par value, of the Company (the "Offered Shares") and an indeterminate amount of interests to be offered or sold pursuant to the Plan.

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 the Offered Shares will be allocated to the Plan from current unallocated share balances in the records of the Company and its transfer agent and that in all cases the consideration paid for each Offered Share is not less than the par value thereof. This opinion relates only to original issuance securities.

We are admitted to practice only 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 statutory provisions 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 26, 2009 relating to the financial statements, financial statement schedule 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, 2008. We also consent to the incorporation by reference in this Registration Statement of our report dated March 31, 2009 relating to the financial statements, which appears in the Annual Report of ON Semiconductor Corporation's 2000 Employee Stock Purchase Plan on Form 11-K for the year ended December 31, 2008.

/s/ PricewaterhouseCoopers LLP

Phoenix, AZ
May 20, 2009