

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 13D/A
Under the Securities Exchange Act of 1934
(Amendment No. 12)*

ON Semiconductor Corporation

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

682189 10 5

(CUSIP Number)

Clive D. Bode
Vice President
Texas Pacific Group
301 Commerce Street, Suite 3300
Fort Worth, TX 76102
(817) 871-4000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

February 5, 2007

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d -1(e), 240.13d -1(f) or 240.13d -1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d -7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 682189 10 5		
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1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON TPG ON Holdings LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS* Not applicable	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="radio"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 16,275,029 (See Items 4 and 5)
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 16,275,029 (See Items 4 and 5)

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 16,275,029 (See Items 4 and 5)
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES* <input type="checkbox"/> 0
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 5.0% (See Items 4 and 5)
14	TYPE OF REPORTING PERSON* OO (Limited Liability Company)

CUSIP No. 682189 10 5

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON TPG Semiconductor Holdings LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS* Not applicable	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="radio"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 34,147,243 (See Items 4 and 5)
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 34,147,243 (See Items 4 and 5)

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 34,147,243 (See Items 4 and 5)
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES* <input type="radio"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 10.5% (See Items 4 and 5)
14	TYPE OF REPORTING PERSON* OO (Limited Liability Company)

Except as specifically amended and supplemented by this Amendment No. 12, all other provisions of the Schedule 13D filed by TPG ON Holdings LLC (“ON Holdings”) on September 17, 2001 (the “Original Schedule 13D”), as amended and supplemented by Amendment No. 1, filed on February 10, 2004 by ON Holdings (“Amendment No. 1”), Amendment No. 2, filed on November 15, 2005 (“Amendment No. 2”) by ON Holdings and TPG Semiconductor Holdings LLC (“TPG Semi”) and, together with ON Holdings, the “Reporting Persons”), Amendment No. 3, filed on November 22, 2005 by the Reporting Persons, (“Amendment No. 3”), Amendment No. 4, filed on June 23, 2006 by the Reporting Persons (“Amendment No. 4”), Amendment No. 5, filed on August 11, 2006 by the Reporting Persons (“Amendment No. 5”), Amendment No. 6, filed on September 6, 2006 by the Reporting Persons (“Amendment No. 6”), Amendment No. 7, filed on September 19, 2006 by the Reporting Persons (“Amendment No. 7”), Amendment No. 8, filed on October 18, 2006 by the Reporting Persons (“Amendment No. 8”), Amendment No. 9, filed on December 11, 2006 by the Reporting Persons (“Amendment No. 9”), Amendment No. 10, filed on December 28, 2006 by the Reporting Persons (“Amendment No.10”) and Amendment No. 11, filed on December 29, 2006 by the Reporting Persons (such Amendment, together with the Original Schedule 13D, Amendment No. 1, Amendment No. 2, Amendment No. 3, Amendment No. 4, Amendment No. 5, Amendment No. 6, Amendment No. 7, Amendment No. 8, Amendment No. 9 and Amendment No. 10, the “Schedule 13D”), remain in full force and effect. Capitalized terms used herein and not otherwise defined shall have the same meanings ascribed to them in the Schedule 13D.

Item 2. Identity and Background.

Item 2 of the Schedule 13D is hereby amended as follows:

- (a) the last sentence of the third paragraph of Item 2 is deleted and replaced with the following: “The executive officers and directors of Advisors are David Bonderman (director and President) and James Coulter (director and Vice President).”
- (b) the sixth and tenth paragraphs of Item 2 are deleted in their entirety.
- (c) the twelfth paragraph of Item 2 is deleted and replaced with the following: “Clive D. Bode has his business address at 301 Commerce Street, Suite 3300, Fort Worth, Texas 76102. Mr. Bode's principal occupation is as a Vice President and Secretary of Advisors.”

Item 4. Purpose of Transaction.

This Amendment No. 12 supplements Item 4 of the Schedule 13D by inserting the following paragraph immediately before the second to last paragraph of Item 4 of the Schedule 13D:

Underwriting Agreement.

On February 5, 2007, the Reporting Persons entered into an Underwriting Agreement (the “Underwriting Agreement”) with Lehman Brothers Inc. (the “Underwriter”), in connection with a public offering of Common Stock by the Reporting Persons pursuant to a Registration Statement on Form S-3 (No. 333-114045) under the Securities Act of 1933, as amended. Pursuant to the Underwriting Agreement, the Reporting Persons agreed to sell 45,000,000 shares of Common Stock to the Underwriter at a price of \$9.22 per share.

Lock-up Agreement.

Pursuant to the Underwriting Agreement, the Reporting Persons entered into a Lock-Up Agreement (the “Lock-up Agreement”) with Lehman Brothers Inc. pursuant to which the Reporting Persons agreed, subject to certain exceptions, not to sell shares of Common Stock (or effect certain other transactions or enter into certain other agreements relating to the Common Stock) until the 60th day following the date of the Lock-up Agreement.”

Item 5. Interest in Securities of the Issuer.

This Amendment No. 12 amends and restates Item 5(a) of the Schedule 13D as set forth below:

- “(a) ON Holdings may be deemed to beneficially own 16,275,029 shares of Common Stock, representing in the aggregate approximately 5.0% of the outstanding shares of Common Stock.

TPG Semi may be deemed to beneficially own 34,147,243 shares of Common Stock, representing in the aggregate approximately 10.5% of the outstanding shares of Common Stock.

The Reporting Persons, collectively and individually, may be deemed to beneficially own 50,422,272 shares of Common Stock, representing in the aggregate approximately 15.5% of the outstanding shares of Common Stock.

The foregoing percentage calculations are based on a total of 325,435,623 shares of Common Stock outstanding as of October 20, 2006 as set forth in the Quarterly Report on Form 10-Q filed by the Company with the Commission on October 30, 2006.”

Item 7.

This Amendment No. 12 amends and restates Item 7 of the Schedule 13D by adding Exhibit 17, as set forth below

“Exhibit 17.

Underwriting Agreement, dated February 5, 2007, between the Reporting Persons and Lehman Brothers Inc. (incorporated by reference from Exhibit 1.1 to the ON Semiconductor Corporation Form 8-K filed on February 6, 2007).”

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 8, 2007

TPG ON Holdings LLC

By: /s/ Clive D. Bode

Name: Clive D. Bode

Title: Vice President

TPG Semiconductor Holdings LLC

By: /s/ Clive D. Bode

Name: Clive D. Bode

Title: Vice President