
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**SCHEDULE 13G
(Rule 13d-102)**

**Information Statement Pursuant to Rules 13d-1 and 13d-2
Under the Securities Exchange Act of 1934
(Amendment No. 2)***

ON SEMICONDUCTOR CORPORATION

(Name of issuer)

Common Stock, par value \$0.01
(Title of class of securities)

682189105
(CUSIP number)

December 31, 2009
(Date of event which requires filing of this statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

* 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. 682189105	
1.	Name of reporting person Brookside Capital Trading Fund, L.P.* EIN No.: 26-4233731
2.	Check the appropriate box if a member of a group* (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC use only
4.	Citizenship or place of organization Delaware
Number of shares beneficially owned by each reporting person with	5. Sole voting power 8,375,240 shares
	6. Shared voting power 0
	7. Sole dispositive power 8,375,240 shares
	8. Shared dispositive power 0
9.	Aggregate amount beneficially owned by each reporting person 8,375,240 shares
10.	Check box if the aggregate amount in Row (9) excludes certain shares <input type="checkbox"/>
11.	Percent of class represented by amount in Row (9) 1.96%
12.	Type of reporting person PN

* On April 1, 2009, substantially all of the assets of Brookside Capital Partners Fund, L.P., including those of the Issuer, were transferred to Brookside Capital Trading Fund, L.P. pursuant to an internal reorganization.

- Item 1 (a). **Name of Issuer**
The name of the issuer to which this filing on Schedule 13G/A relates is ON SEMICONDUCTOR CORPORATION (the "Company").
- Item 1 (b). **Address of Issuer's Principal Executive Offices**
The principal executive offices of the Company are located at 5005 E. McDowell Road, Phoenix, AZ, 85008.
- Item 2 (a). **Name of Person Filing**
This Statement is being filed on behalf of Brookside Capital Trading Fund, L.P., a Delaware limited partnership (the "Brookside Fund"). Brookside Capital Investors II, L.P., a Delaware limited partnership ("Brookside Investors II") is the sole general partner of the Brookside Fund. Brookside Capital Management, LLC, a Delaware limited liability company ("Brookside Management"), is the sole general partner of Brookside Investors II. Mr. Domenic J. Ferrante is the sole managing member of Brookside Management.
On April 1, 2009, substantially all of the assets of Brookside Capital Partners Fund, L.P., including those of the Company, were transferred to Brookside Capital Trading Fund, L.P. pursuant to an internal reorganization.
- Item 2 (b). **Address of Principal Business Office or, if none, Residence**
The principal business address of each of the Brookside Fund, Brookside Investors II, Brookside Management and Mr. Ferrante is 111 Huntington Avenue, Boston, Massachusetts 02199.
- Item 2 (c). **Citizenship**
Each of the Brookside Fund, Brookside Investors II and Brookside Management is organized under the laws of the State of Delaware. Mr. Ferrante is a citizen of the United States.
- Item 2 (d). **Title of Class of Securities**
The class of equity securities of the Company to which this filing on Schedule 13G/A relates is Common Stock, par value \$0.01 per share ("Common Stock").
- Item 2 (e). **CUSIP Number**
The CUSIP number of the Company's Common Stock is 682189105.
- Item 3. **If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**
Not applicable.
- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 73c).
- (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) An investment adviser in accordance with §13d-1(b)(1)(ii)(E).
- (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F).
- (g) A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G).
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).
- (j) Group, in accordance with §240.13d-1(b)(1)(ii)(J).
- If this statement is filed pursuant to §240.13d-1(c), check this box.**

Item 4. Ownership

Item 4 (a). Amount beneficially owned

As of the close of business on December 31, 2009, the Brookside Fund beneficially owned 8,375,240 shares of Common Stock. The Brookside Fund acts by and through its general partner, Brookside Investors II. Brookside Investors II acts by and through its general partner, Brookside Management. Mr. Domenic J. Ferrante is the managing member of Brookside Management and thus is the controlling person of Brookside Management. No person other than the respective owner referred to herein of the Common Stock is known to have the right to receive or the power to direct the receipt of dividends from or the proceeds from the sale of such Common Stock.

Item 4 (b). Percent of Class

As of the close of business on December 31, 2009, the Brookside Fund was the beneficial owner of 1.96% of the Common Stock of the Company. The aggregate percentage of Common Stock reported owned by the Brookside Fund is based upon 425,202,329 shares of Common Stock outstanding, which is the total number of shares of Common Stock outstanding as of October 31, 2009, based on representations made in the Company's Form 10-Q filed November 5, 2009 with the Securities and Exchange Commission.

Item 4 (c). Number of shares as to which such person has:

(i) sole power to vote or to direct the vote:

8,375,240 Shares

(ii) shared power to vote or to direct the vote:

0

(iii) sole power to dispose or to direct the

(iv) disposition of:

8,375,240 Shares

(v) shared power to dispose or to direct the disposition of:

0

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not Applicable.

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company:

Not Applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. **Certification**

By signing below, the undersigned certifies that, to the best of its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Dated: February 16, 2010

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.

BROOKSIDE CAPITAL TRADING FUND, L.P.

By: /s/ Domenic J. Ferrante

Name: Domenic J. Ferrante

Title: Managing Director