

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

**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934  
(Amendment No. \_\_\_)**

SunPower Corporation

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(Name of Issuer)

Class A Common Stock, par value \$0.001 per share

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(Title of Class of Securities)

867652109

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(CUSIP Number)

December 31, 2005

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(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 information required in 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.

1. Names of Reporting Persons.  
I.R.S. Identification Nos. of above persons (entities only).

**Cypress Semiconductor Corporation**

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Citizenship or Place of Organization

**Delaware**

5. Sole Voting Power

44,533,287<sup>(1)</sup> shares of Class B Common Stock, par value \$0.001 per share, of SunPower Corporation ("Class B Common Stock"), which are convertible into 44,533,287 shares of Class A Common Stock, par value \$0.001 per share, of SunPower Corporation ("Class A Common Stock")

Number of  
Shares  
Beneficially by

6. Shared Voting Power

Owned by  
Each

0

Reporting  
Person  
With:

7. Sole Dispositive Power

44,533,287 shares of Class B Common Stock, which are convertible into 44,533,287 shares of Class A Common Stock

8. Shared Dispositive Power

0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

44,533,287 shares of Class B Common Stock, which are convertible into 44,533,287 shares of Class A Common Stock

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares.

11. Percent of Class Represented by Amount in Row (9):

57.6%<sup>(1)(2)</sup>

12. Type of Reporting Person:

**CO**

<sup>(1)</sup> Shares and percent reflect ownership interest as of May 1, 2007.

<sup>(2)</sup> The percentage ownership reported in this Schedule 13G is based on 77,299,661 shares of Class A Common Stock issued and outstanding as of February 23, 2007, as reported by the Issuer (as defined below) in its Annual Report on Form 10-K for the fiscal year ended December 31, 2006, filed with the Securities and Exchange Commission on March 2, 2007, which included approximately 2.9 million shares of Class A Common Stock lent by SunPower to one of the underwriters of its Senior Convertible Debentures issued in February 2007. For the purpose of determining the ownership interest in SunPower and impact on the financial statements, Cypress excludes these loan shares from SunPower's outstanding shares.

- Item 1.** (a) Name of Issuer:  
SunPower Corporation (the "Issuer")
- (b) Address of Issuer's Principal Executive Offices:  
3939 North First Street, San Jose, CA 95134

- Item 2.** (a) Name of Person Filing:  
Cypress Semiconductor Corporation ("Cypress")
- (b) Address of Principal Business Office or, if none, Residence:  
198 Champion Court, San Jose, CA 95134
- (c) Citizenship:  
Delaware
- (d) Title of Class of Securities:  
Class A Common Stock, par value \$0.001 per share
- (e) CUSIP Number:  
867652109

**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:**

- (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. 78c).
- (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 §240.13d-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 associations 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).

**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

**(a) Amount beneficially owned:**

44,533,287<sup>(1)</sup> shares of Class B Common Stock, which are convertible into 44,533,287 shares of Class A Common Stock.

Cypress, its successors in interest and its subsidiaries may convert shares of Class B Common Stock held by them into shares of Class A Common Stock at any time, and shares of Class B Common Stock will automatically convert into shares of Class A common Stock if, under certain circumstances, (i) such shares of Class B Common Stock are transferred to a person other than Cypress, a successor in interest to Cypress or one of Cypress' subsidiaries or (ii) Cypress, its successors in interest and its subsidiaries collectively own less than 40% of the shares of all classes of the Issuer's common stock then outstanding.

**(b) Percent of class:**

57.6%<sup>(1)(2)</sup>.

**(c) Number of shares as to which the person has:****(i) Sole power to vote or to direct the vote:**

See Item 4(a).

**(ii) Shared power to vote or to direct the vote:**

0.

**(iii) Sole power to dispose or to direct the disposition of:**

See Item 4(a).

**(iv) 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**

Not applicable.

**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.

Dated: May 7, 2007

CYPRESS SEMICONDUCTOR CORPORATION

/s/ Brad W. Buss

By: Brad W. Buss

Title: Executive Vice President, Finance and  
Administration and Chief Financial Officer