FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL								
OMB Number:	3235-0287							
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0.5

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* Mahoney Robert Charles					2. Issuer Name and Ticker or Trading Symbol ON SEMICONDUCTOR CORP [ONNN]									heck all	applicable) Director	pplicable) ector 10% Owner cer (give title Other (specify	
(Last) (First) (Middle) 5005 EAST MCDOWELL ROAD					3. Date of Earliest Transaction (Month/Day/Year) 11/09/2009										elow)		
				4. If	4. If Amendment, Date of Original Filed (Month/Day/Year)								ne) <mark>X</mark> F	idual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person			
	Tabl	e I - Nor	ı-Deriv	ative	Se	curitie	s Ac	quired,	Dis	posed o	f, or	Bene	eficia	ally Ov	vned		
Date			Date	Date E: (Month/Day/Year) if		2A. Deemed Execution Date, if any (Month/Day/Year)		Transaction Disposed Code (Instr. 5)		ties Acquired (A) d Of (D) (Instr. 3,		(A) or 3, 4 ai	nd Se Be Ov	curities neficially vned Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
								Code	v	Amount			Price	Tra	ansaction(s)		(instr. 4)
Common 11/09				/2009	2009		S		10,000		D \$7.6		.6	80,326	D		
	Та													y Own	ed		
ve Conversion Date Execution Date, or Exercise (Month/Day/Year) if any		Date, ny/Year)	Transa Code (e (Instr. Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			Expiration Date (Month/Day/Year) Amour Securi Underl Deriva				unt of crities erlying vative crity (In: 4) Amo or Nun of	ount nber	Derivati Securit	derivative Securities Beneficially Owned Following Reported	Ownershi Form: Direct (D) or Indirect (I) (Instr.	Beneficial Ownership t (Instr. 4)	
Mahoney Robert Charles (Last) (First) (Middle) 5005 EAST MCDOWELL ROAD (Street) PHOENIX AZ 85008 (City) (State) (Zip) Table I - Non-Derivative (Month/Daylyear) Table II - Derivative (e.g., put (e.g., put (Month/Daylyear)) 1. Title of Derivative (Price of Derivative (Month/Daylyear) (Month/Daylyear) Security (Instr. 3) (Middle) Street Table II - Non-Derivative (Month/Daylyear) 3. Transaction Date (Month/Daylyear) (Month/Daylyear) (Month/Daylyear) (Month/Daylyear)					(First) (Middle) ST MCDOWELL ROAD Table I - Non-Derivative Security (Instr. 3) Table II - Derivative S (e.g., puts, composition of Exercise Price of Derivative Security 2. Transaction Date (Month/Day/Year) 3. Transaction Date (Month/Day/Year) 4. Transaction Date (Month/Day/Year) (Month/Day/Year)	(First) (Middle) ST MCDOWELL ROAD A. If Ame (X AZ 85008 (State) (Zip) Table I - Non-Derivative Security (Instr. 3) Table II - Derivative Security (e.g., puts, calls 2. Transaction Date (Month/Day/Year) (Month/Day/Year) 2. 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If Amendment, Date of Original Filed (Month/Day/Year) Table I - Non-Derivative Securities Acquired, Disposed of Execution Date, if any (Month/Day/Year) Table II - Derivative Securities Acquired, Disposed of (e.g., puts, Calls, warrants, options, convertibe Security 2. Transaction Date (Month/Day/Year) Table II - Derivative Securities Acquired, Disposed of (e.g., puts, Calls, warrants, options, convertibe Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) Date Expiration Date (Month/Day/Year)	(First) (Middle) ST MCDOWELL ROAD 3. Date of Earliest Transaction (Month/Day/Year) 11/09/2009 4. If Amendment, Date of Original Filed (Month/Day/Year) 11/09/2009 Table I - Non-Derivative Securities Acquired, Disposed of, or Becurity (Instr. 3) 2. Transaction Date (Month/Day/Year) (Month/Day/Year) 11/09/2009 Table II - Derivative Securities Acquired, Disposed of (Disposed of (Disposed of (D)) (Month/Day/Year) 2. Concersion or Exercise Date (Month/Day/Year) (Month/Day/Year	Conversion Con	Content Cont	Check all Chec	Check all applicable Director Core Conversion Core Conversion Core Cor	ON SEMICONDUCTOR CORP [ONNN] (Check all applicable) Director 10%

Explanation of Responses:

Remarks:

Judith A. Boyle is signing on behalf of the Reporting Person pursuant to a Power of Attorney attached herein as an Exhibit. mahoney2009poa.TXT

<u>Judith A. Boyle, Attorney-in-</u> <u>Fact</u> <u>11/12/2009</u>

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

POWER OF ATTORNEY (Robert Charles Mahoney)

I hereby appoint Keith D. Jackson, George H. Cave and Judith A. Boyle, and each of them, attorney-in-fact for me, each with full power of substitution, to prepare, execute and deliver on my behalf reports required to be filed by me pursuant to Section 16 of the Securities Exchange Act of 1934, as amended ("Section 16"), and Rule 144 and Rule 145 under the Securities Act of 1933 (singly or collectively ("Rule 144")), and any and all related documents and instruments. Among other things, each attorney-in-fact is authorized to file original reports (either electronically or otherwise), signed by me or on my behalf, on Forms 3, 4 and 5, Form 144 with the Securities and Exchange Commission, any and all related documents and instruments, and to provide any necessary copies of such signed forms, documents and instruments to The NASDAQ Stock Market and ON Semiconductor Corporation as required by the rules under Section 16 and Rule 144 as in effect from time to time.

This power of attorney is effective from the date hereof until April 15, 2010, unless earlier revoked or terminated.

/s/ ROBERT CHARLES MAHONEY Robert Charles Mahoney

Dated: March 2, 2009