



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

Bi-CMOS LSI

LV59033M — 3.3V Constant-Voltage Power Supply IC

Overview

The LV59033M is a constant-voltage power supply IC incorporating the output ON/OFF function, which offers advantages such as small current drain when output OFF and saves power dissipation of the equipment.

Features

- 3.3V output
- Output voltage ON/OFF function with the control pin (active, high)
- Output current of 1A obtainable (V_{IN1} , $V_{IN2} \geq 4.3V$)
- Small current drain (1 μ A max) when output OFF and optimum for power saving
- MFP8 (200mil) package, ensuring easy mounting design
- Full compliment of protection circuits incorporated (including overcurrent protection, thermal protection)

Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum power supply	V_{IN1}	V_{IN1} pin	6.2	V
	V_{IN2}	V_{IN2} pin	6.2	V
Allowable power dissipation	P_d max	Mounted on a specified board.*	1.45	W
Operating Temperature	T_{opr}		-30 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}		-40 to +125	$^\circ\text{C}$

* Specified board: 50mm $\times$ 50mm $\times$ 1.6mm, glass epoxy both sides

Recommended Operating Ranges at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
power supply	V_{IN1}	V_{IN1} pin	3.4 to 6	V
	V_{IN2}	V_{IN2} pin	3.4 to 6	V
Output current	I_O		0 to 1	A

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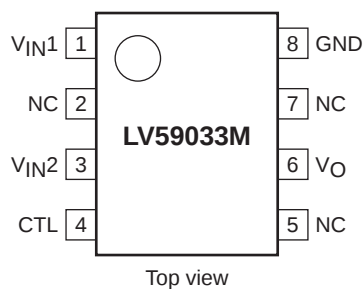
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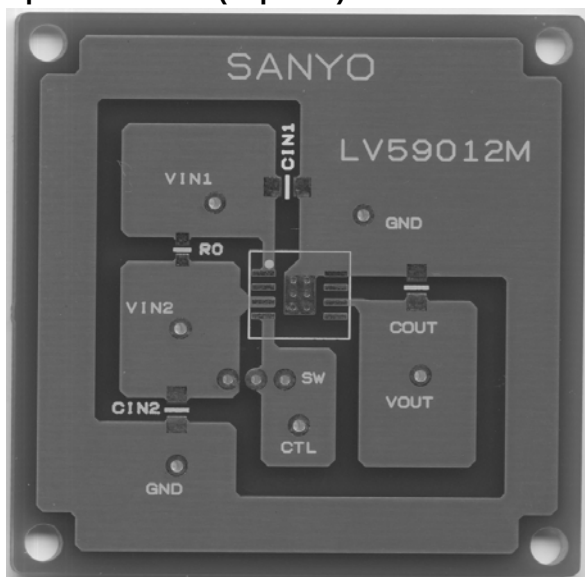
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LV59033M

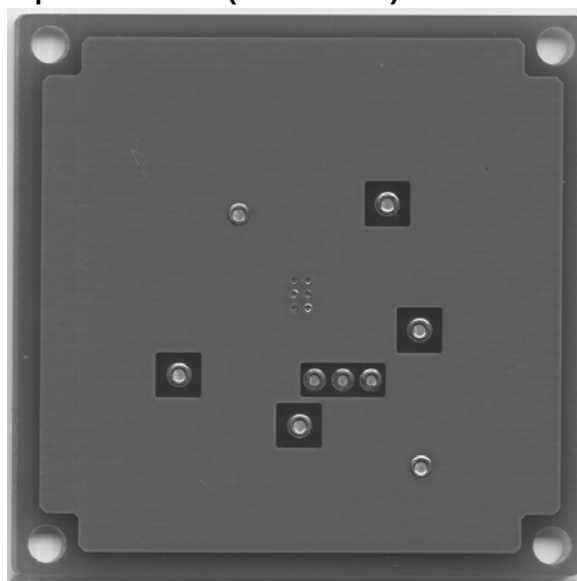
Pin Assignment



Specified Board (Top side)

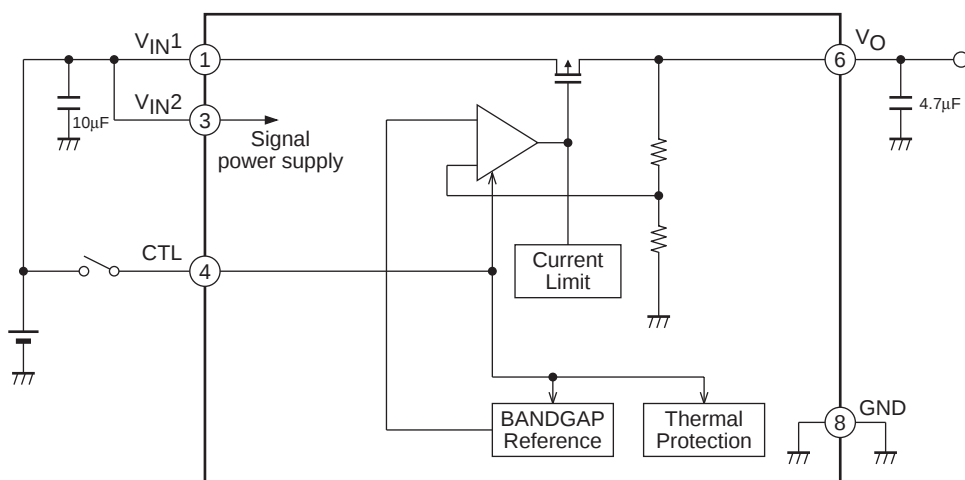


Specified Board (Bottom side)



Note: The substrate is common with LV59012M.

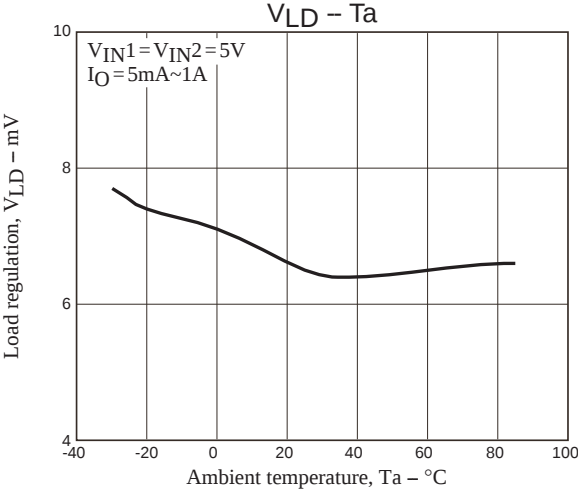
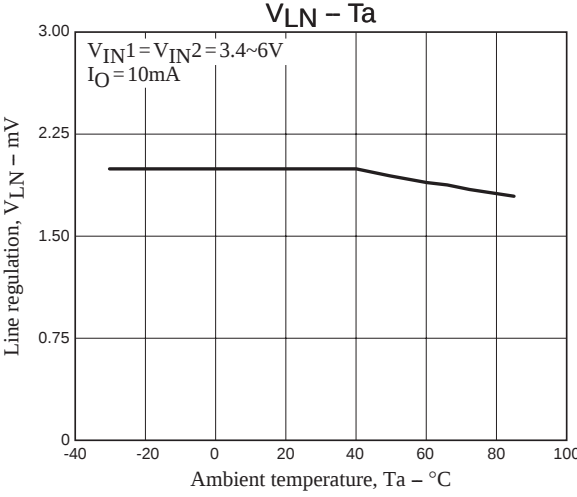
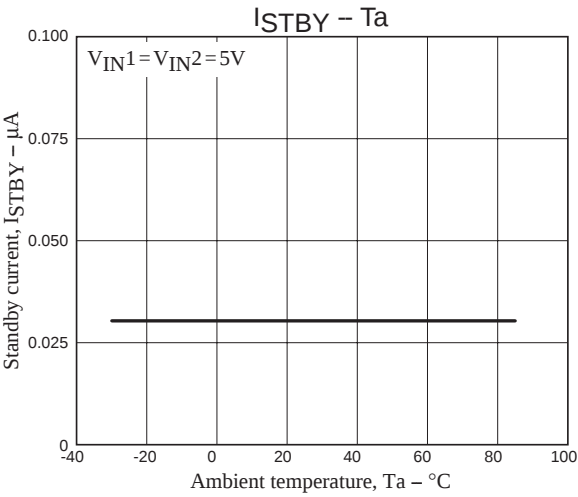
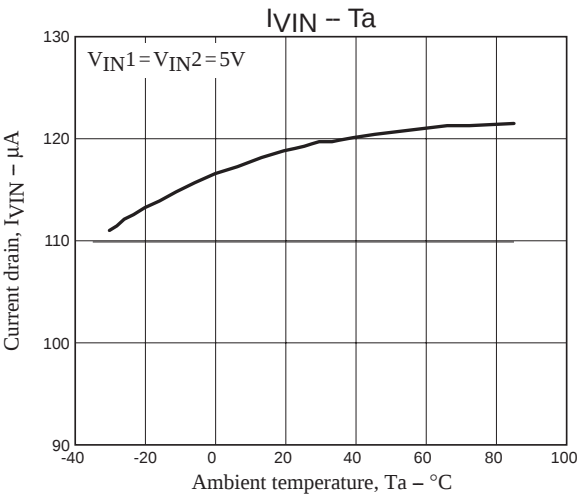
Block Diagram

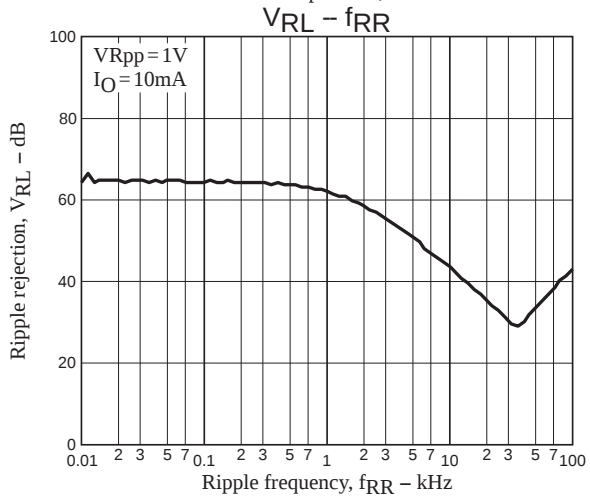
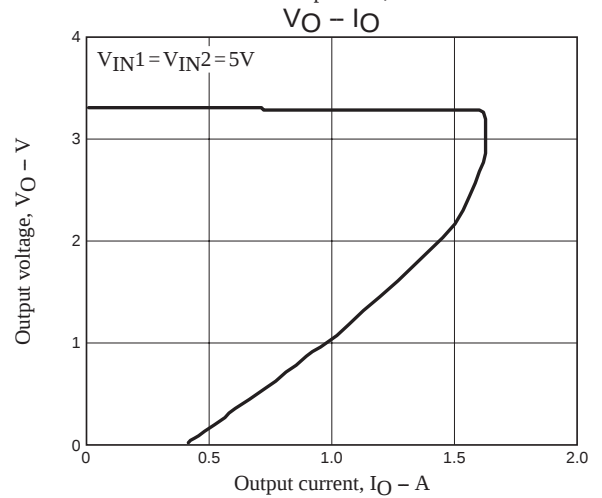
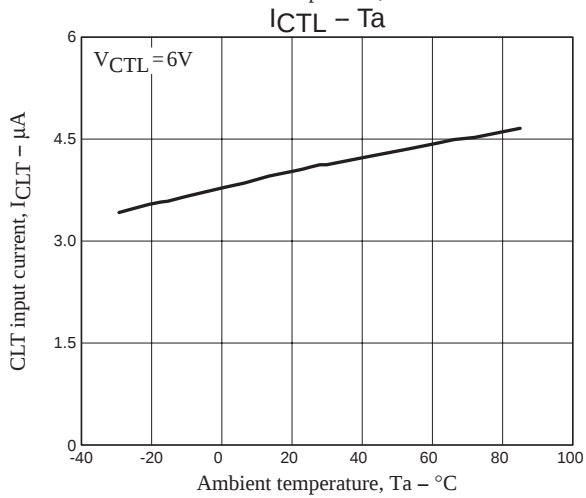
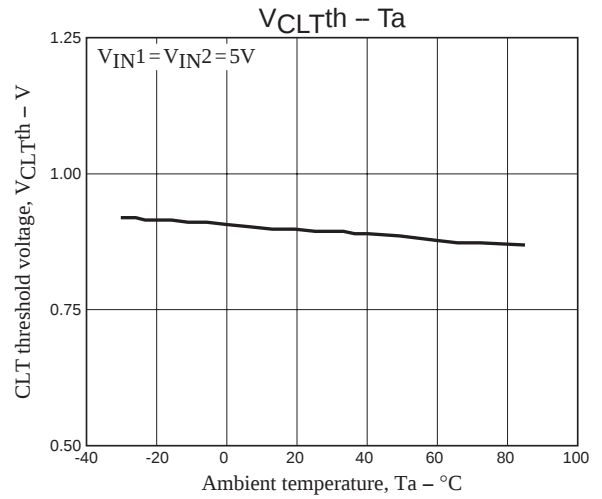
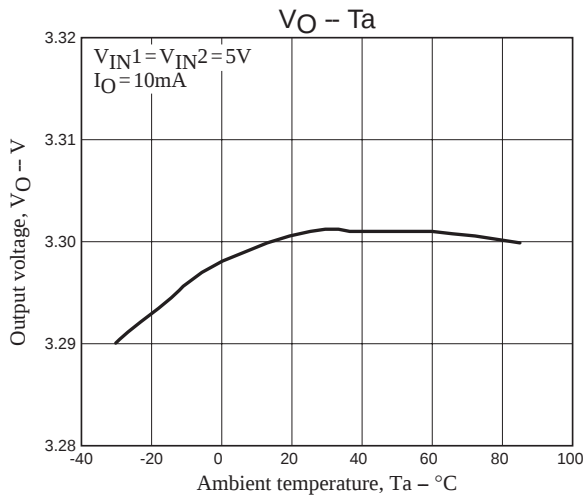
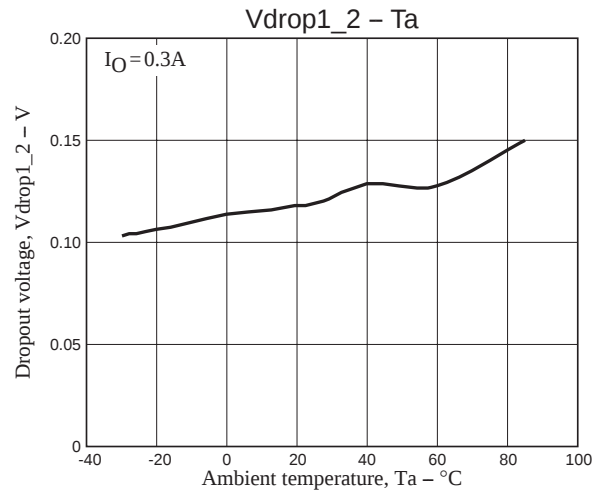
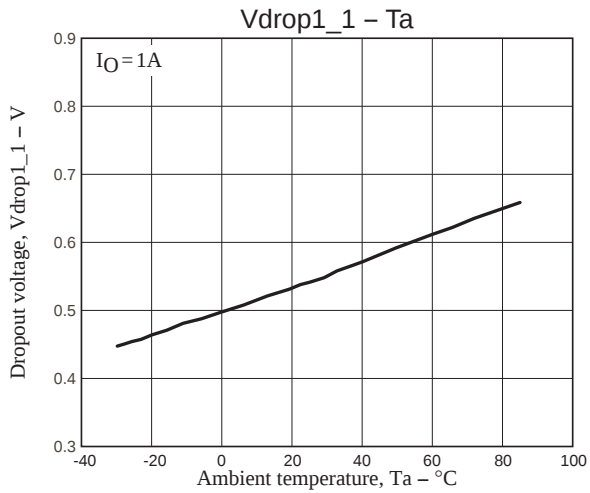


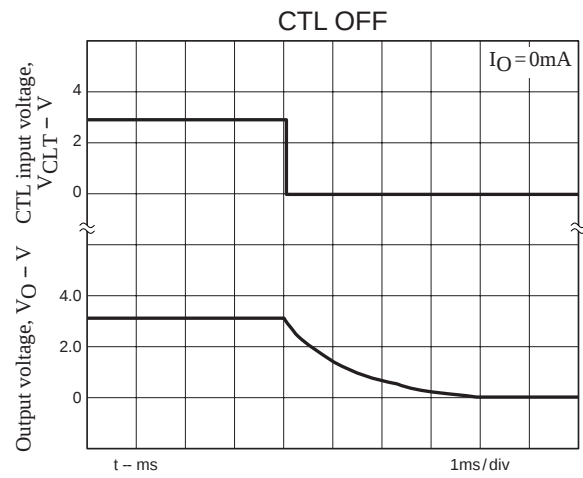
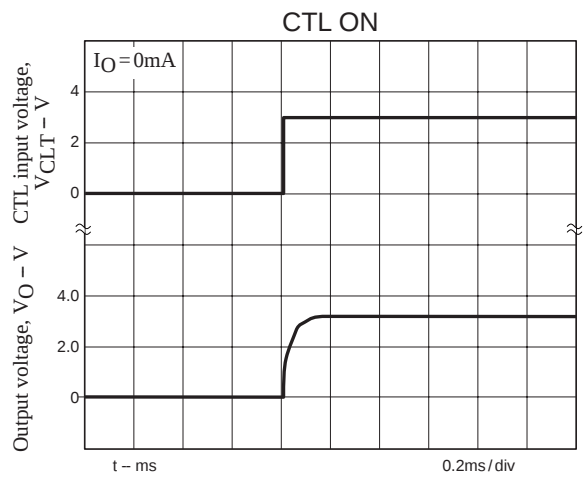
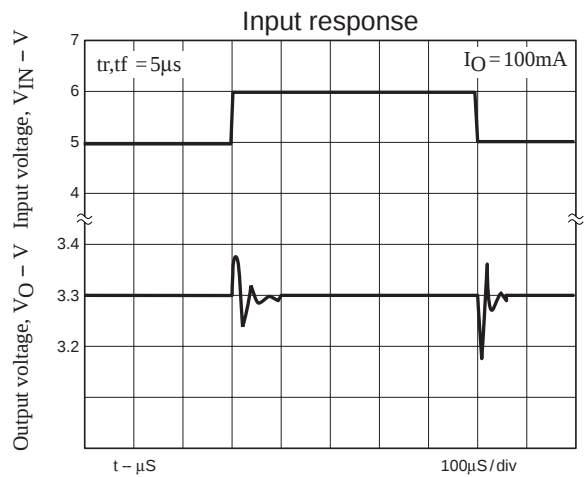
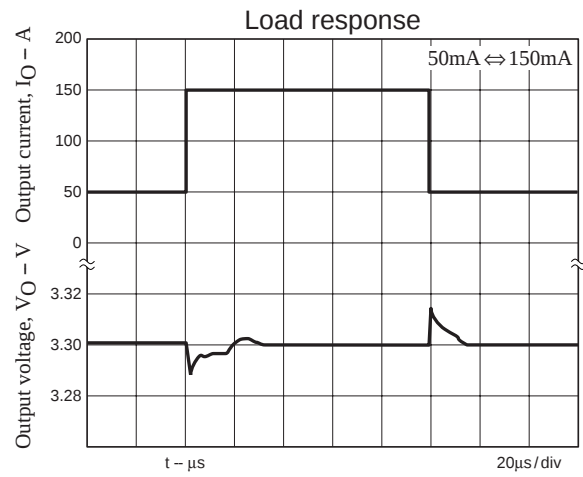
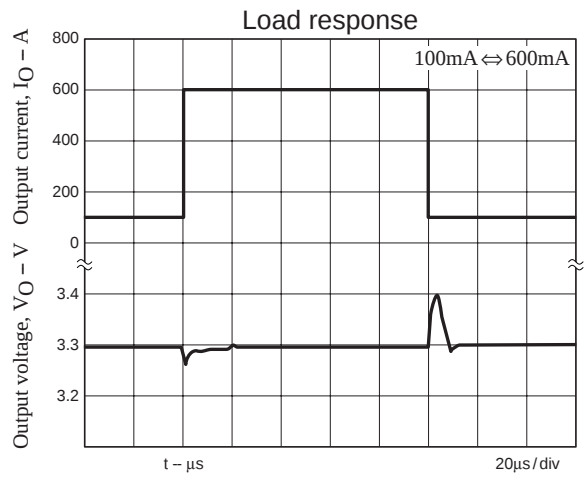
Pins 2,5,7 NC
Connect and use V_{IN1} and V_{IN2}.

Pin Function

Pin No.	Pin name	Function	Equivalent circuit
1	V _{IN1}	Power system supply pin.	
6	V _O	Output voltage pin.	
2	NC	No contact.	
3	V _{IN2}	Signal system power supply pin.	
4	CTL	ON/OFF control pin.	
5	NC	No contact.	
7	NC	No contact.	
8	GND	Ground pin.	







Radiation Pad

- Radiation pad is high impedance and connected with a substrate of IC.
- Use radiation pad by GND or opening.

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