



Product Overview

LV8111VB: 3-phase Brushless Motor Driver for a Polygon Mirror Motor

For complete documentation, see the data sheet

Product Description

The LV8111VB is a 3-phase brushless motor driver intended as a fully integrated driver for a laser beam printer (LBP) polygon mirror motor. This is a highly integrated solution which uses a DMOS output structure and employs synchronous rectification for low power consumption and a phase locked loop (PLL) speed control scheme to achieve extremely high rotational precision.

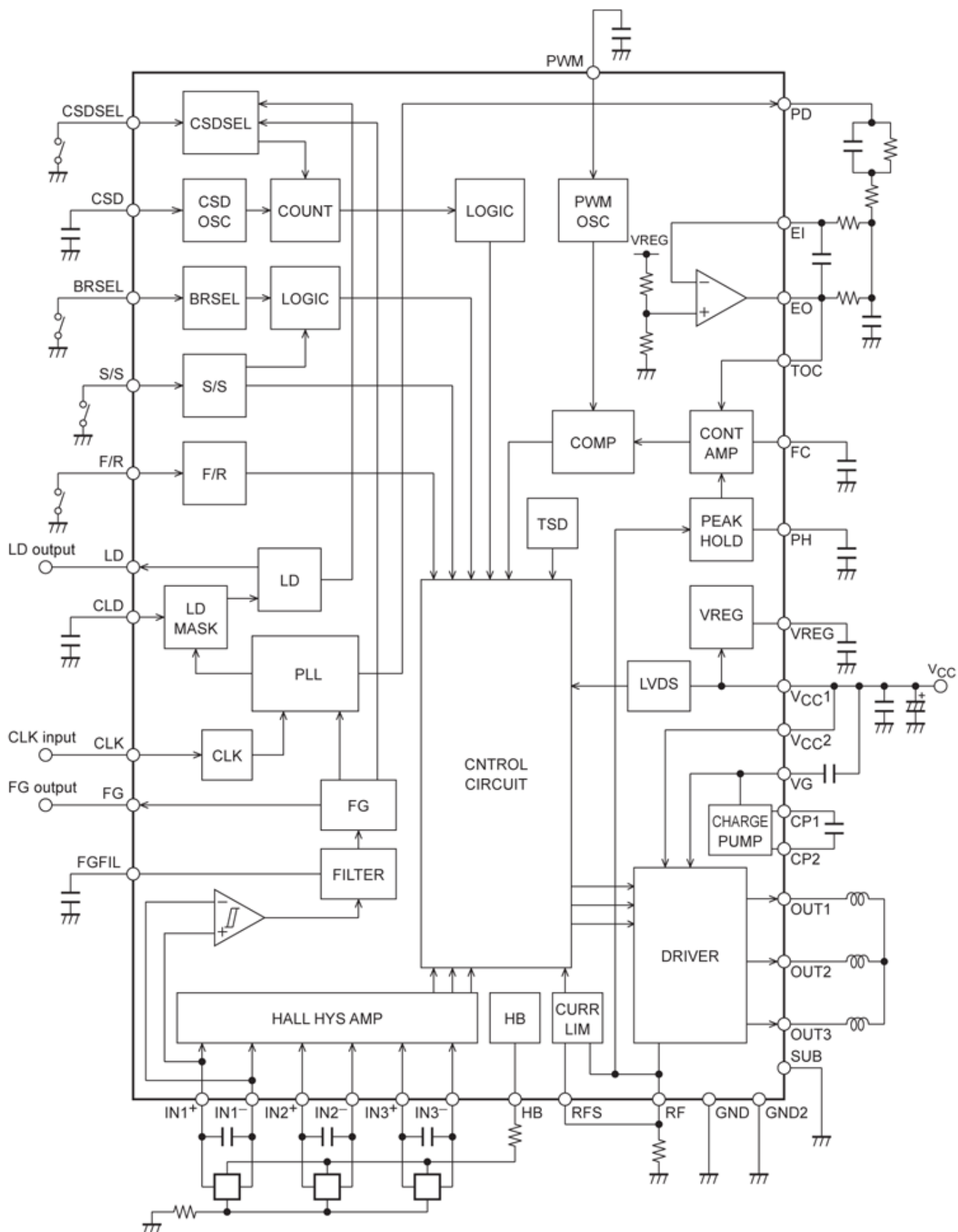
Features	Benefits
<ul style="list-style-type: none"><li>• Direct PWM drive + synchronous rectification</li><li>• PLL speed control circuit</li><li>• Current limiter, constraint protection, thermal shutdown, under-voltage protection circuit</li><li>• 3-phase bipolar drive</li><li>• IO max1 = 2.5A</li><li>• IO max2 = 3.0A (t is within 0.1ms)</li><li>• Output current control circuit</li><li>• Phase lock detection output (with mask function)</li><li>• Circuit to switch slowing down method while stopped (Free run or Short-circuit brake)</li><li>• Constraint protection detection signal switching circuit (FG or LD)</li></ul>	<ul style="list-style-type: none"><li>• Low consumption</li><li>• High efficiency and Low jitter</li><li>• Safety design</li></ul>

Applications	End Products
<ul style="list-style-type: none"><li>• Polygon Mirror Motor</li></ul>	<ul style="list-style-type: none"><li>• Laser beam printer (LBP)</li><li>• Plain paper copier (PPC)</li><li>• Multi function printer (MFP)</li></ul>

Part Electrical Specifications

Product	Compliance	Status	Type	V <sub>M</sub> Min (V)	V <sub>M</sub> Max (V)	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	I <sub>O</sub> Max (A)	I <sub>O</sub> Peak Max (A)	Step Reso lution	Cont rol Type	Feed back Meth od	Curr ent SENSE	Reg ulato r Outp ut	Fault Dete ction	Flyb ack Prot ectio n	R <sub>DS(ON)</sub> Typ ()	Pack age Type
LV8111VB-AH	Pb-free Halide free	Active	Brushless DC	10	37	10	37		3		Clock		External Resistor	Yes	Lock Over-Cur rent Thermal UV LO		1.5	SSOP-44K EP

## Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

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