

LB1935FA

Allowable Operating Range at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Source voltage	V_{CC}		2.2 to 7.5	V
Input high level voltage	V_{IH}	ENA, IN1, IN2 pin	1.8 to 7.5	V
Input low level voltage	V_{IL}	ENA, IN1, IN2 pin	-0.3 to +0.7	V

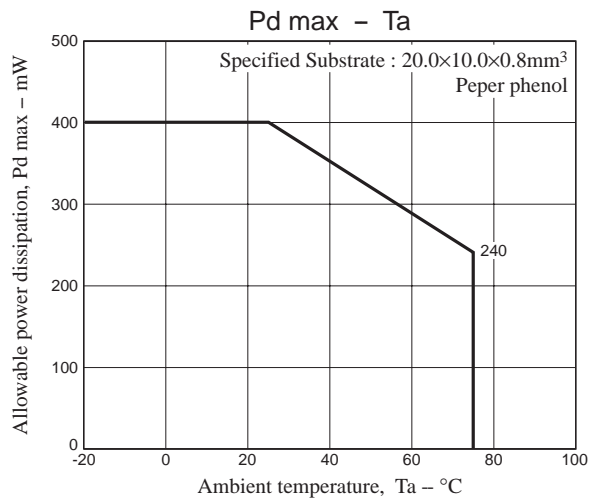
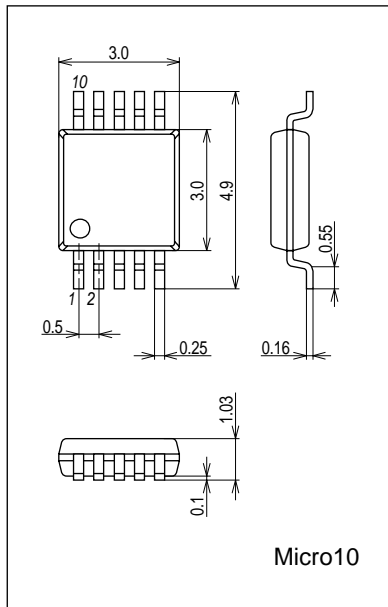
Electric Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 3.3\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Power source current	I_{CC0}	ENA = 0V, $V_{IN} = 3\text{V}$ or 0V		0.1	1	μA
	I_{CC1}	ENA = 3V, $V_{IN} = 3\text{V}$ or 0V		13	19	mA
Output saturation voltage	V_{OUT1}	ENA = 3V, $V_{IN} = 3\text{V}$ or 0V, $I_{OUT} = 100\text{mA}$		0.2	0.3	V
	V_{OUT2}	ENA = 3V, $V_{IN} = 3\text{V}$ or 0V, $I_{OUT} = 200\text{mA}$		0.4	0.6	V
Input current	I_{IN}	$V_{IN} = 3\text{V}$		40	60	μA
	I_{ENA}	VENA = 3V		40	60	μA
Spark killer diode						
Reverse current	$I_S(\text{leak})$				1	μA
Forward voltage	V_{SF}	$I_{OUT} = 200\text{mA}$			1.7	V

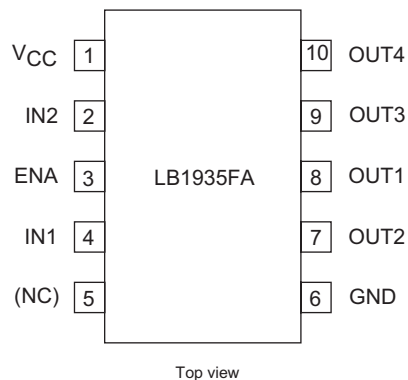
Package Dimensions

unit : mm (typ)

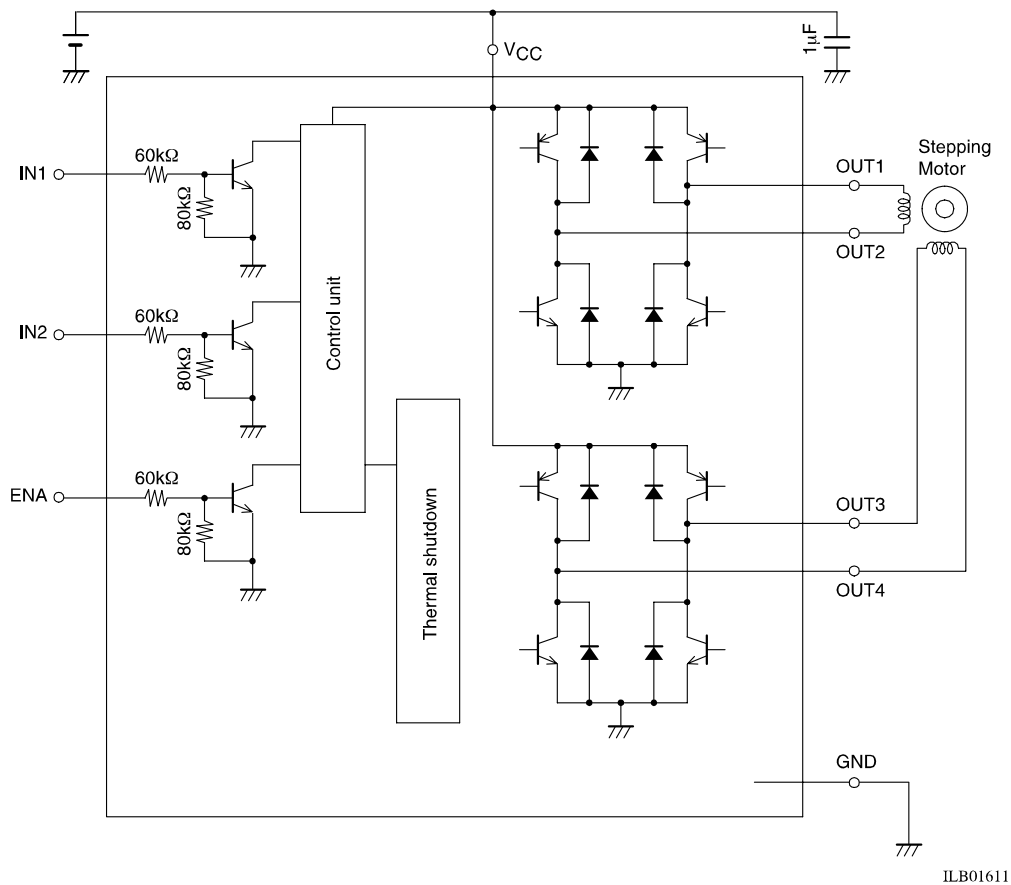
3428



Pin Assignments



Block Diagram

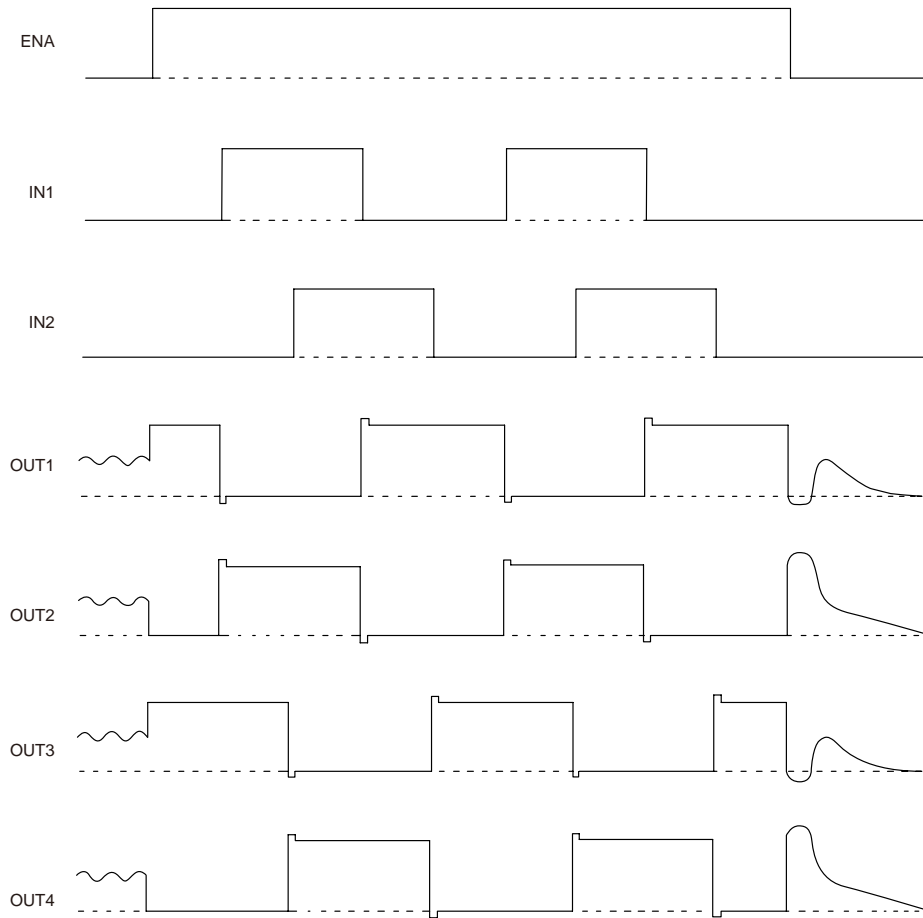


Truth Table

Input			Output				Remarks
ENA	IN1	IN2	OUT1	OUT2	OUT3	OUT4	
L	-	-	OFF	OFF	OFF	OFF	Standby
H	L	L	H	L	H	L	2-phase excitation
	L	H	H	L	L	H	
	H	H	L	H	L	H	
	H	L	L	H	H	L	

Timing Chart

Timing chart below shows the 2 phase excitation stepping motor.



ON Semiconductor and the ON logo are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of SCILLC's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.