

LB1936V

Allowable Operating Range at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V _{CC}		2.5 to 9.5	V
	V _S		2.5 to 9.5	
High-level input voltage	V _{IH}		2.0 to 7.5	V
Low-level input voltage	V _{IL}		-0.3 to 0.7	V

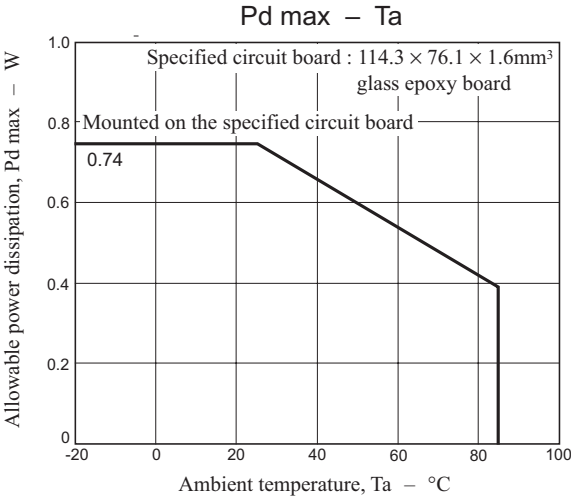
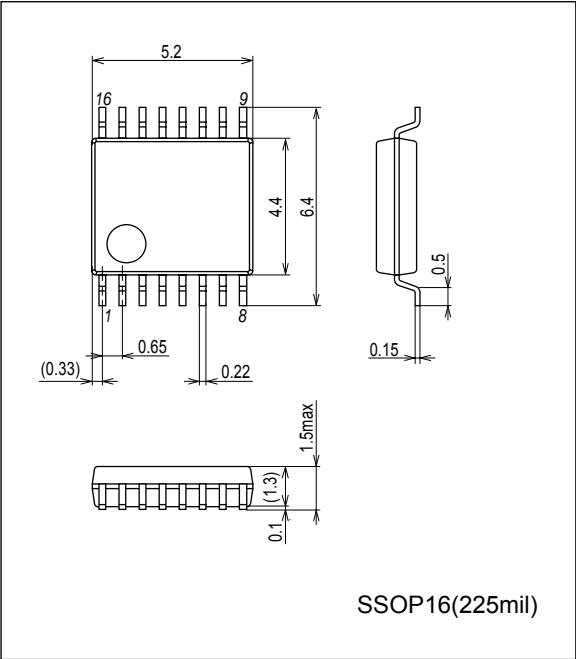
Electrical Characteristics at Ta = 25°C, V_{CC} = V_S = 5V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
V _{CC} system power supply current	I _{CC0}	IN1 = IN2 = IN3 = IN4 = 0V		0.1	1	μA
	I _{CC1}	IN1 = IN3 = 3V, IN2 = IN4 = 0V		10	16	mA
V _S system power supply current	I _{S0}	IN1 = IN2 = IN3 = IN4 = 0V		0.1	1	μA
	I _{S1}	IN1 = IN3 = 3V, IN2 = IN4 = 0V		12	19	mA
Output saturation voltage	V _{OUT1}	V _{CC} = V _S = 3V to 7.5V, V _{IN} = 3V or 0V, I _{OUT} = 200mA (High and low side)	-	0.25	0.4	V
	V _{OUT2}	V _{CC} = V _S = 4V to 7.5V, V _{IN} = 3V or 0V, I _{OUT} = 400mA (High and low side)	-	0.5	0.8	V
Input current	I _{IN}	V _{IN} = 5V		150	200	μA
Spark killer diode						
Reverse current	I _{S(leak)}				30	μA
Forward voltage	V _{SF}	I _{OUT} = 400mA			1.7	V

Package Dimensions

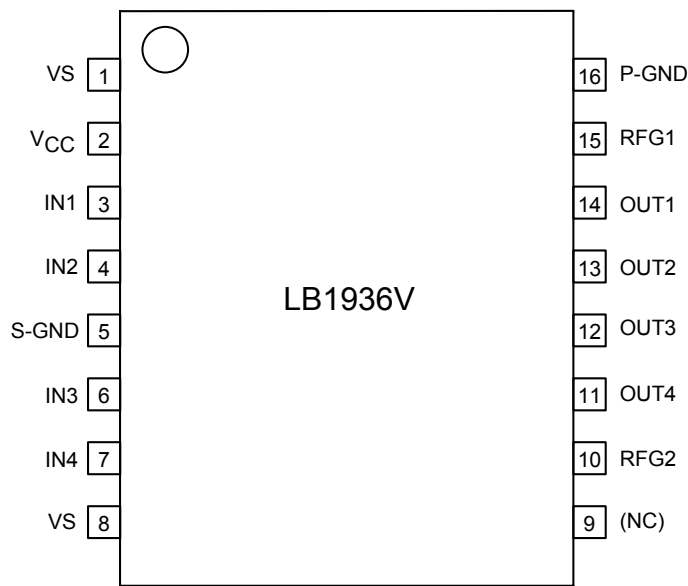
unit:mm (typ)

3178B



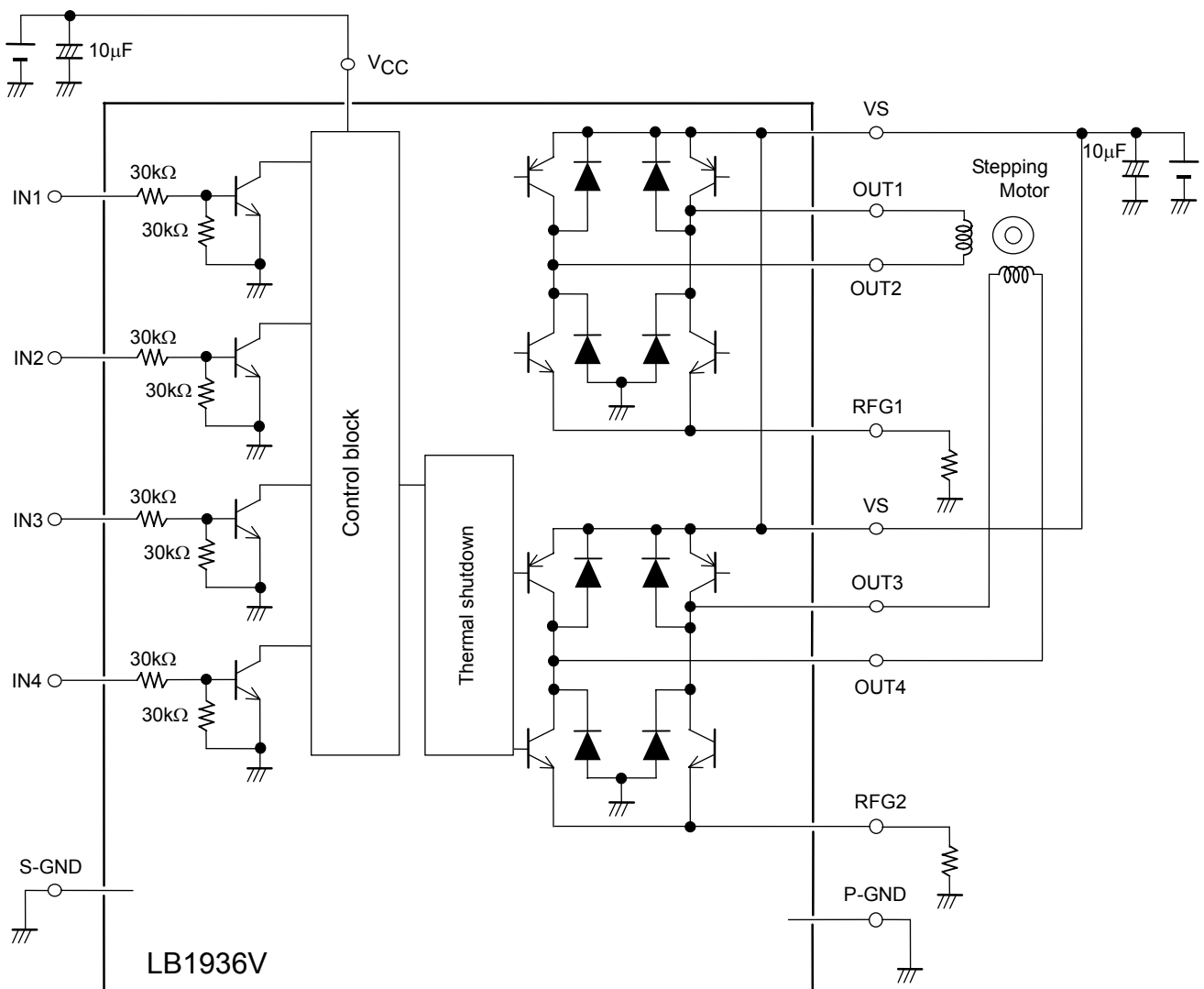
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Pin Assignment



Top view

Block Diagram



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Truth Table

IN1	IN2	IN3	IN4	OUT1	OUT2	OUT3	OUT4	Output mode
L	L	-	-	off	off	-	-	(1)
L	H			L	H			(2)
H	L			H	L			(3)
H(*)	H(*)			off	H			(4)
-	-	L	L	-	-	off	off	(4)'
								(5)
								(6)
								(7)
-	-	L	H	-	-	L	H	(8)
								(8)'
								(9)
								(9)'

L : low, H : high

*: The output logic mode when IN1/IN2 = H/H is determined by the immediately preceding IN1/IN2 mode.

The post-switching output modes will be as follows.

When switching from (2): (4)

When switching from (3): (4)'

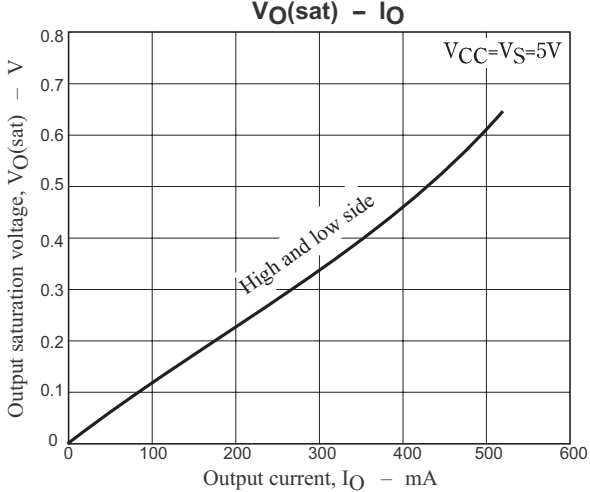
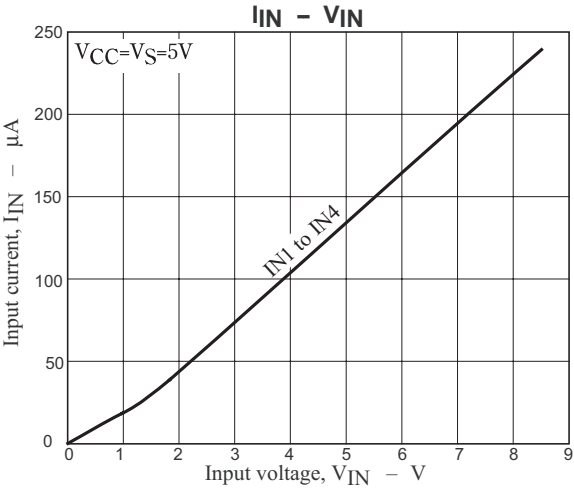
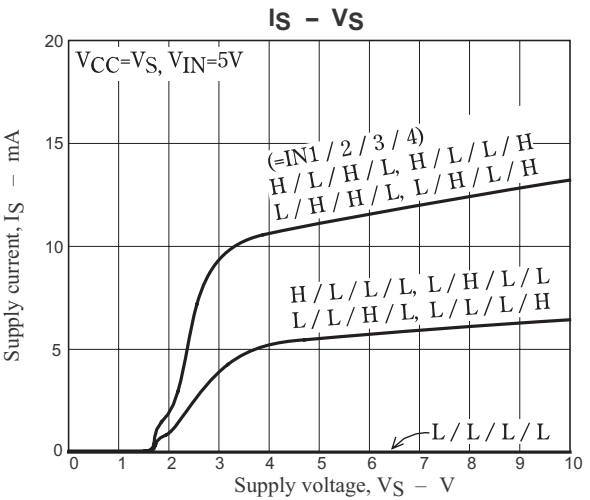
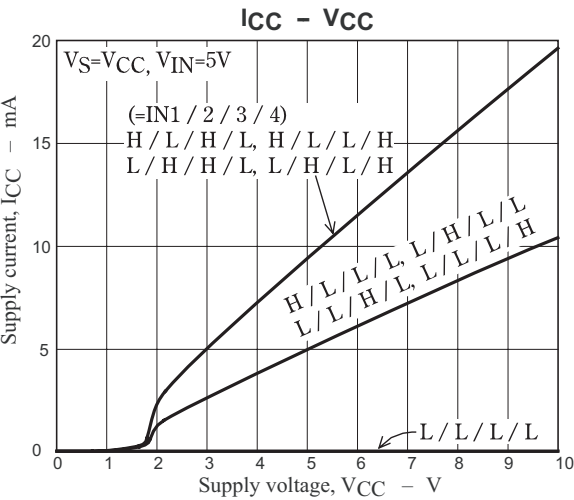
When switching from (1): Undefined (Either (4) or (4)')

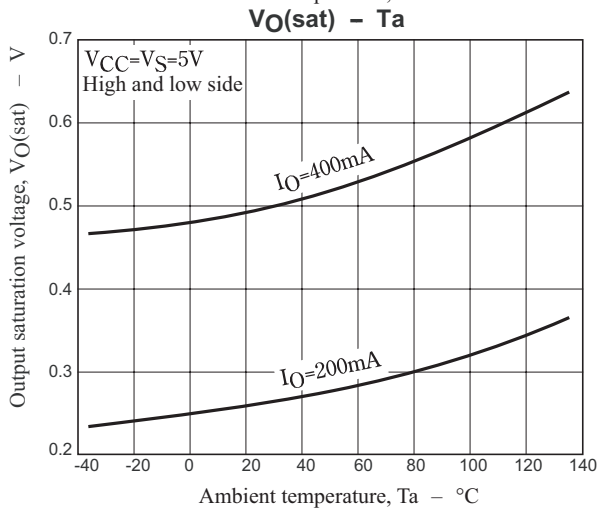
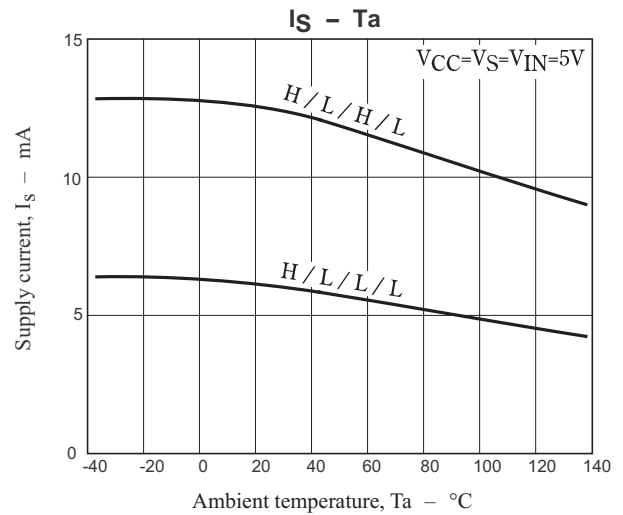
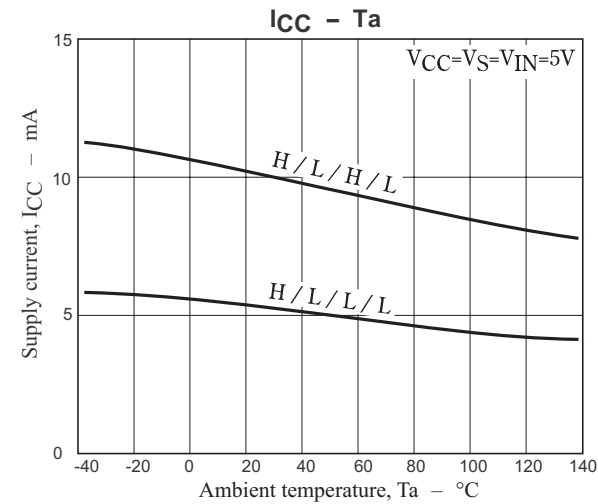
The modes when IN3/IN4 = H/H operate similarly as described below.

When switching from (6): (8)

When switching from (7): (8)'

When switching from (5): Undefined (Either (8) or (8)')





ORDERING INFORMATION

Device	Package	Shipping (Qty / Packing)
LB1936V-MPB-E	SSOP16 (225mil) (Pb-Free)	90 / Fan-Fold
LB1936V-TLM-E	SSOP16 (225mil) (Pb-Free)	2000 / Tape & Reel

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