

LB1638MC

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

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage range	V_{CC}		2.5 to 9.0	V
	V_S		2.2 to 9.0	V
Input high-level voltage	V_{IH}		2.0 to 9.0	V
Input low-level	V_{IL}		-0.3 to +0.7	V

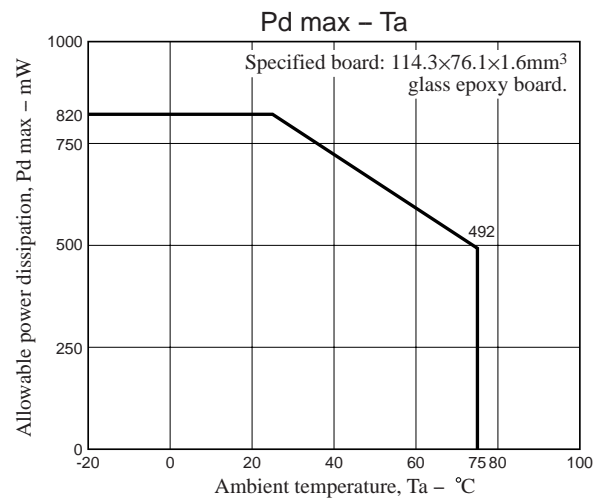
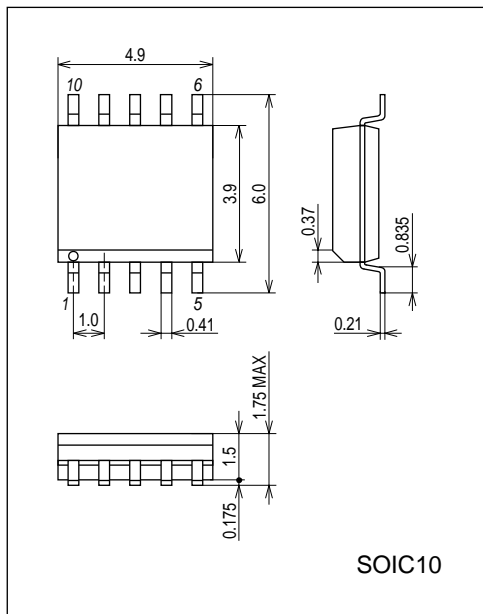
Electrical Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 5\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_{CC0}	$V_{IN1,2}$ $I_{CC} + I_S$			10	μA
	I_{CC1}	$V_{IN1} = 3\text{V}$, $V_{IN2} = 0\text{V}$ $I_{CC} + I_S$			20	mA
	I_{CC2}	$V_{IN1,2} = 3\text{V}$ $I_{CC} + I_S$			40	mA
Output saturation voltage (upper + lower)	V_{OUT1}	$I_{OUT} = 200\text{mA}$		0.25	0.5	V
	V_{OUT2}	$I_{OUT} = 500\text{mA}$		0.70	1.3	V
Output pin voltage difference		$I_O = 200\text{mA}$			0.1	V
Output sustain voltage	$V_{O(sus)}$	$I_{OUT} = 500\text{mA}$	9			V
Input current	I_{IN}	$V_{IN} = 7\text{V}$, $V_{CC} = 7\text{V}$			0.5	mA
Spark killer diode						
Reverse current	$I_S(\text{leak})$	V_{CC} , $V_S = 7\text{V}$			10	μA
Forward voltage	V_{SF}	$I_{OUT} = 200\text{mA}$			1.7	V

Package Dimensions

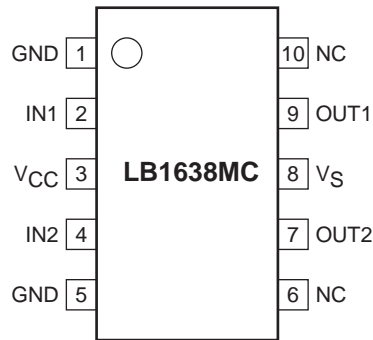
unit : mm (typ)

3426A



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Pin Assignment

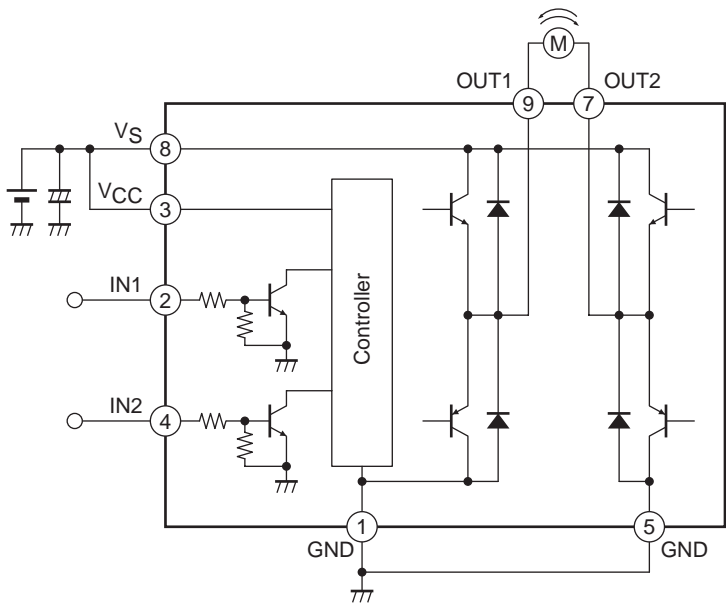


Note: both ground pins must be grounded.

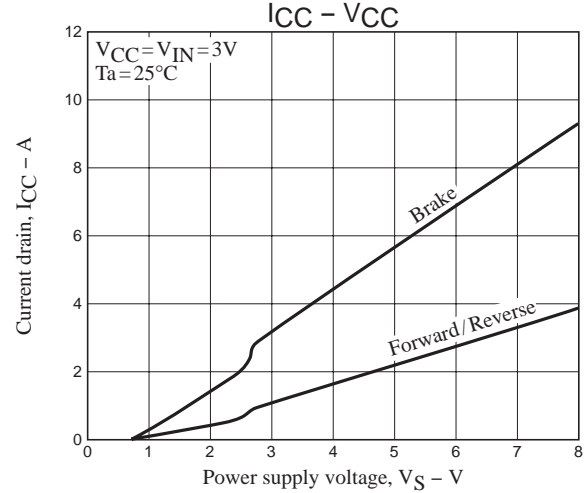
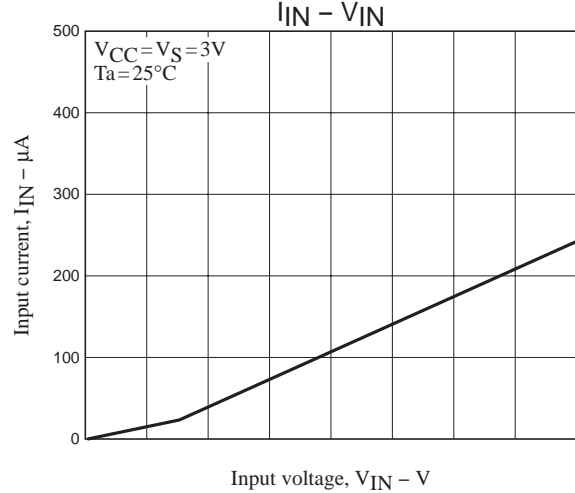
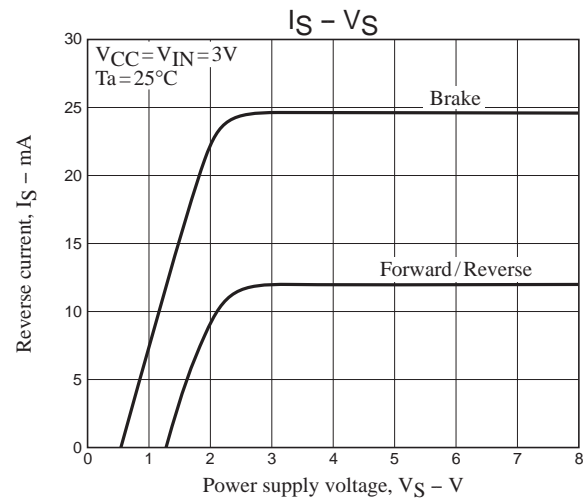
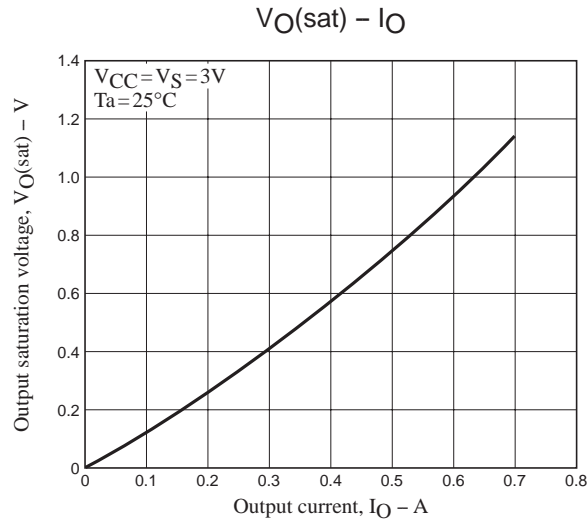
Truth Table

IN1	IN2	OUT1	OUT2	MMode
H	L	H	L	Forward
L	H	L	H	Reverse
H	H	L	L	Brake
L	L	OFF	OFF	Standby

Block Diagram and Sample Application Circuit



Note: When using the same power supply for VS and VCC, short the VCC and VS pins to each other or insert a capacitor in the VCC line.



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