Allowable Operating Ranges at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}, V_S		3.0 to 9.0	V
Input high level voltage	V_{IH}		2.0 to 9.0	V
Input low level voltage	V_{IL}		-0.3 to +0.3	V
Control voltage	V_C		1.0 to 6.0	V

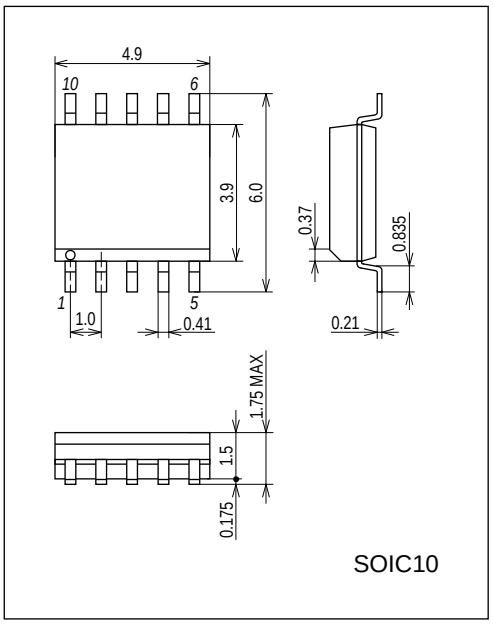
Electrical Characteristics at Ta = 25°C, V_{CC} = 6V

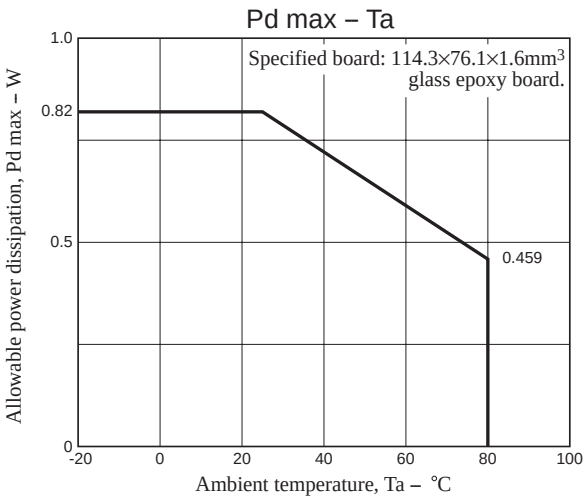
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	$I_{CC}0$	IN1 = IN2 = Vm = 0V, V_C = Vref at standby mode		0.1	10	μA
	$I_{CC}1$	Forward/reverse, control, load OPEN		2	3	mA
	$I_{CC}2$	Forward/reverse, saturation, load OPEN		3	5	mA
	$I_{CC}3$	Braking, load OPEN		5	8	mA
Output saturation voltage	Vsat1	I_O = 40mA (upper side + lower side)		0.2	0.3	V
	Vsat2	I_O = 80mA (upper side + lower side)		0.4	0.6	V
Reference voltage	Vref	I_{Vref} = 1mA	1.85	2.0	2.15	V
Voltage characteristics of output voltage	ΔV_O-Line	V_O = 5V, V_{CC} = 5.5 to 9V, I_O = 40mA			80	mA
Current characteristics of output voltage	ΔV_O-Load	V_O = 5V, V_{CC} = 6V, I_O = 10 to 80mA			50	mA
Input current	I_{IN}	V_{IN}= 5V		90	150	μA
Output voltage	V_O	V_C= 2V	2.3×V_C		2.5×V_C	V

Package Dimensions

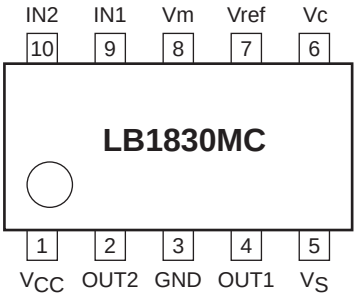
unit : mm (typ)

3426A

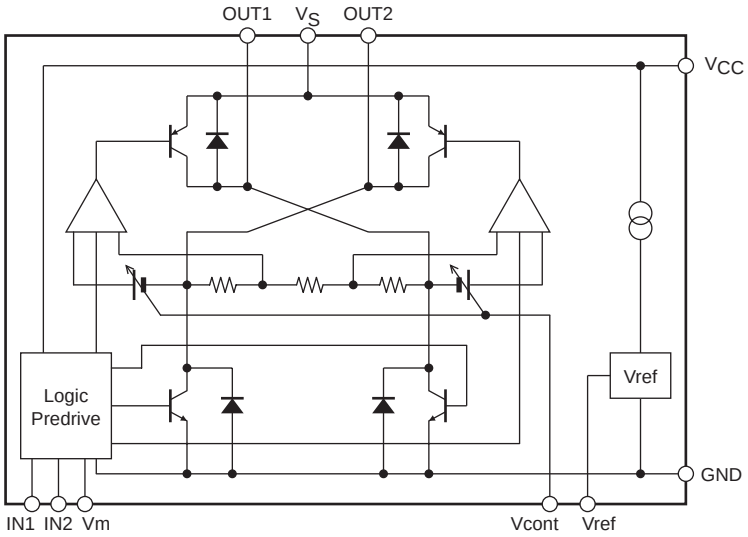




Pin Assignment



Block Diagram



- The output voltage (voltage between output pins) Vo during drive with constant voltage is set as follows:
  V_O = (V_C pin input voltage) × 2.4 (typical)

- There is no hierarchical relationship among voltages; VCC (control supply voltage), VS (motor supply voltage), IN1/IN2 (input signal voltage).

Truth Table

Input			Output		Mode
IN1	IN2	Vm	OUT1	OUT2	
L	L	L	OFF	OFF	Standby
H	L	L	H	L	Forward (Regulated)
H	L	H	H	L	Forward (Saturation)
L	H	L	L	H	Reverse (Regulated)
L	H	H	L	H	Reverse (Saturation)
H	H	*	L	L	Brake

* when in saturation mode, V_C = VS available.

Application Circuit Example