Allowable Operating Range at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		2.5 to 16	V
Input high level voltage	V_{IH}	Pins ENA, IN1, IN2	1.8 to 10	V
Input low level voltage	V_{IL}		-0.3 to +0.7	V

Electrical Characteristics at Ta = 25°C, V_{CC} = 12V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Power source current	$I_{CC}0$	ENA = L		0.1	10	μA
	$I_{CC}1$	ENA = H		25	35	mA
Output saturation voltage	$V_{OUT}1$	I_{OUT} = 200mA		0.25	0.35	V
	$V_{OUT}2$	I_{OUT} = 400mA		0.50	0.75	V
Input current	I_{IN}	V_{IN} = 5V		120	160	μA
Thermal protection block *1						
Thermal shutdown operation temperature	Ttsd	Design guarantee *2		180		°C
Temperature hysteresis width	ΔTtsd			60		°C
Spark killer diode						
Reverse current	I_S(leak)				30	μA
orward voltage	V_{SF}	I_{OUT} = 400mA			1.7	V

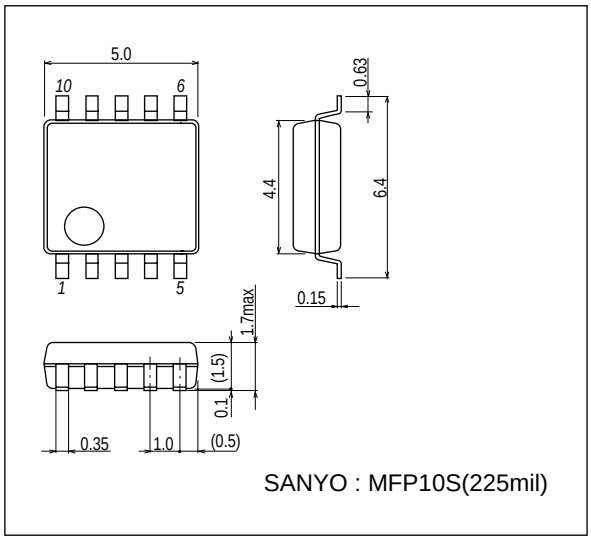
*1 The thermal protection function is a feature to prevent the product from smoking and firing under unusual conditions. It is not intended to guarantee operation of the product under an ambient temperature exceeding the operating temperature range.

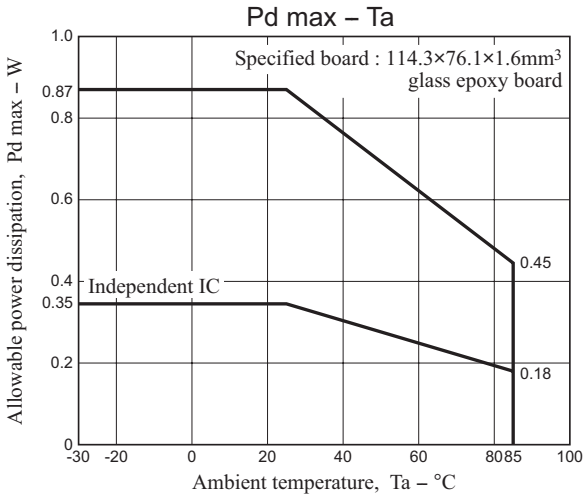
*2 Design guarantee is not tested in individual units.

Package Dimensions

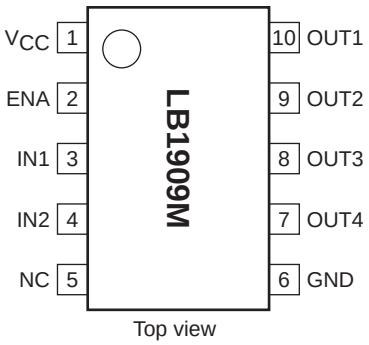
unit : mm (typ)

3086B





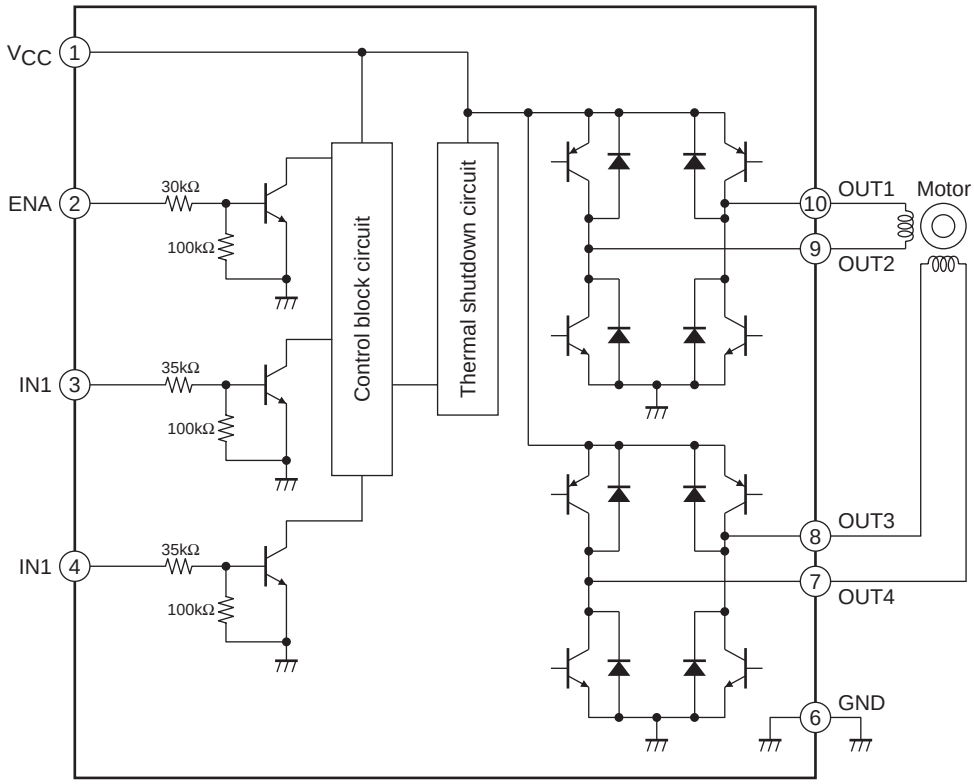
Pin Assignment



Truth table

Input			Output				Remarks	
ENA	IN1	IN2	OUT1	OUT2	OUT3	OUT4		
L	×	×	OFF	OFF	OFF	OFF	Standby mode	
H	L		H	L			Channel 1	Forward
	H		L	H				Reverse
		L			H	L	Channel 2	Forward
		H			L	H		Reverse

Block Diagram



Timing Chart (2 phase excitation drive)