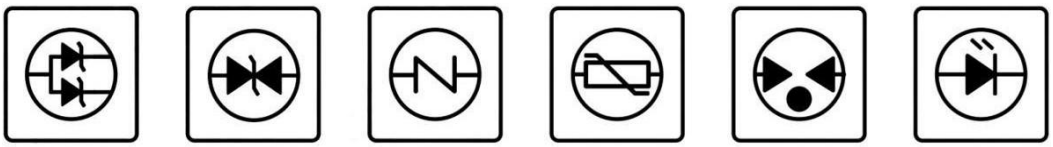
MSKSEMI 美森科
SEMICONDUCTOR



MX6208(MS)

产品规格手册

概述

MX6208(MS)是为 5V 和 12V 供电电压下工作的系统而设计的单通道低导通电阻直流电机驱动集成电路。集成了电机正转/反转/停 止/刹车四个功能。

MX6208(MS)集成了温度保护功能，当芯片温度超过内部温度保护电路设置得最高温度点后，内部电路关断内置的功率开关管，切断负载电流，避免温度过高造成塑料封装冒烟、起火等安全隐患。

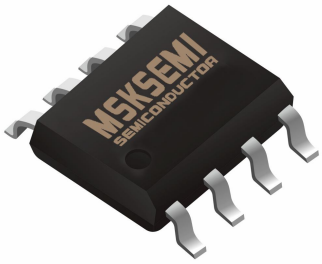
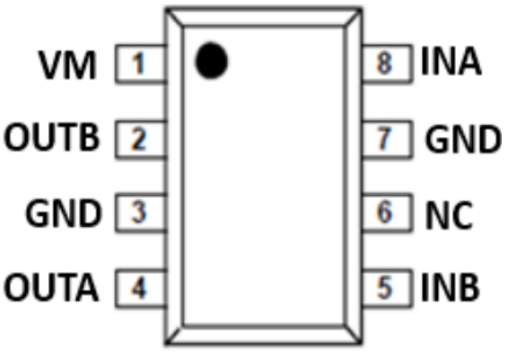
特性

- 工作电压 4.0-15.0V
- 持续电流 0.2A，峰值电流 0.3A
- 兼容 1.8V/3.3V/5.0V IO
- 低导通电阻
- 低待机电流
- 低工作电流
- 集成过温保护功能

典型应用

- IR-CUT 驱动

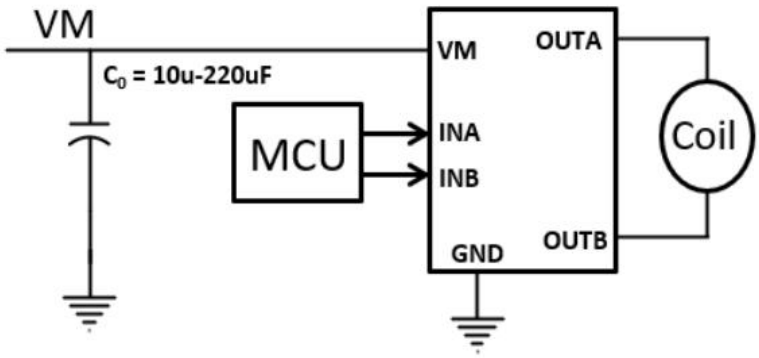
封装形式和管脚功能定义

封装图	脚位信息	管体标记
		
SOIC-8		

脚位定义

NO.	NAME	TYPE	DESCRIPTION
1	VM	P	电源输入脚，连接10uF或更大电容在VM和GND之间
2	OUTB	O	输出OUTB
3	GND	P	地
4	OUTA	O	输出OUTA
5	INB	I	逻辑输入INB
6	NC	I	悬空脚
7	GND	P	地，和3脚短接
8	INA	I	逻辑输入INA

简单应用电路



绝对最大定额值

参数		最小	最大	单位
电源电压	VM	-0.3	18.0	V
输入电压	INA,INB	-0.3	7.0	
静电保护（人体模型）	VM, INA,INB,OUTA,OUTB	2		kV
工作温度	T_J	-40	150	°C
存储温度	T_{stg}	-65	150	
热阻	θ_{JA}		160	°C/W

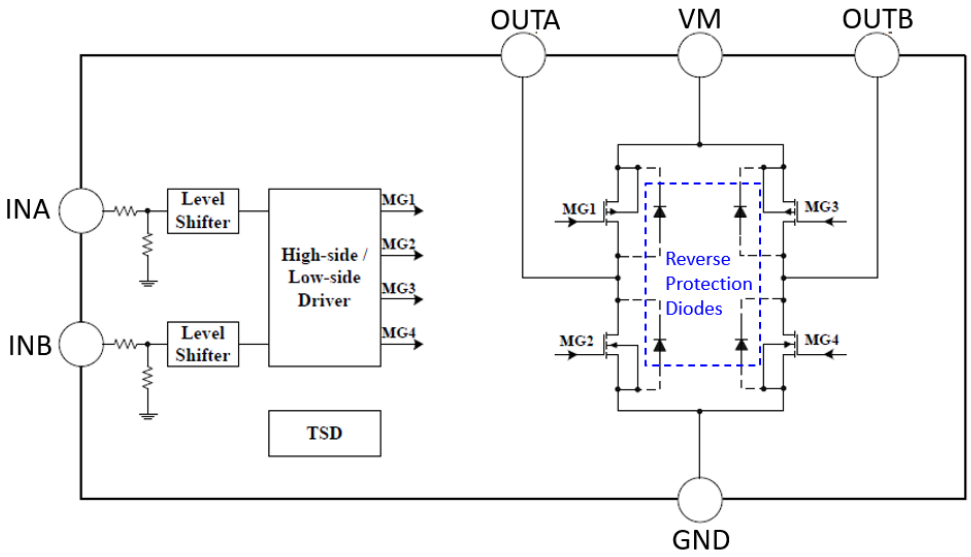
推荐工作范围

参数		最小	最大	单位
电源电压	VM	4.0	15.0	V
输入电压	INA,INB	0	5.0	
输出电流	I_{OUTA}, I_{OUTB}	0	0.2	A

电气特性（VM=12.0V, Ta=25 ˚C, R_{LOAD}=20）

参数		测试条件	最小值	典型值	最大值	单位
导通阻抗						
FET 导通电阻	R_{DSON}	I_{OUT}=100mA		6.0		Ω
INA/INB						
高电平输入电压	V_{INH}		1.5		5.0	V
低电平输入电压	V_{INL}		0		0.8	V
下拉电阻	R_{PD}			50	100	kΩ
工作电流						
电路关断电流	I_{VM_OFF}	INA=INB=0		1.0	10	uA
电路工作电流	I_{VM_ON}			180	400	uA
过温保护						
过温保护点	T_{OTSD}			160		ºC
过温保护迟滞点	T_{HYS}			40		ºC
VM 上升欠压保护	V_{UVLO_R}	VM 上升		3.60	4.00	V
VM 下降欠压保护	V_{UVLO_F}	VM 下降		3.35	3.75	V

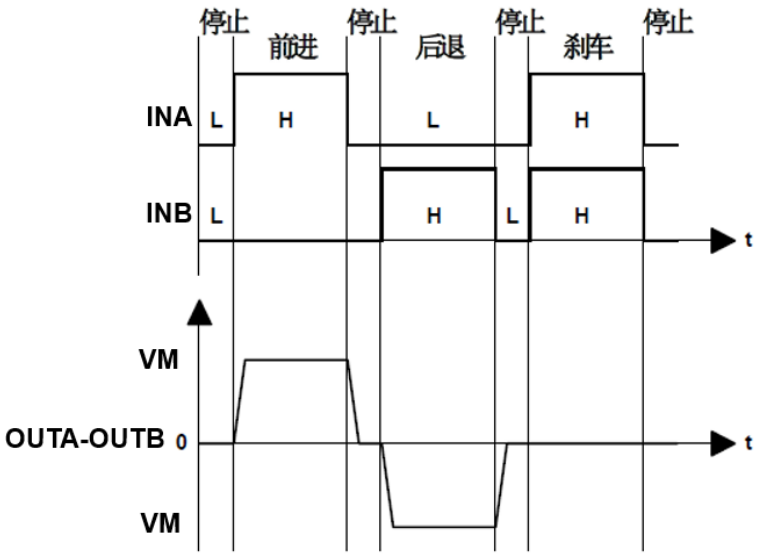
功能框图



输入-输出逻辑表

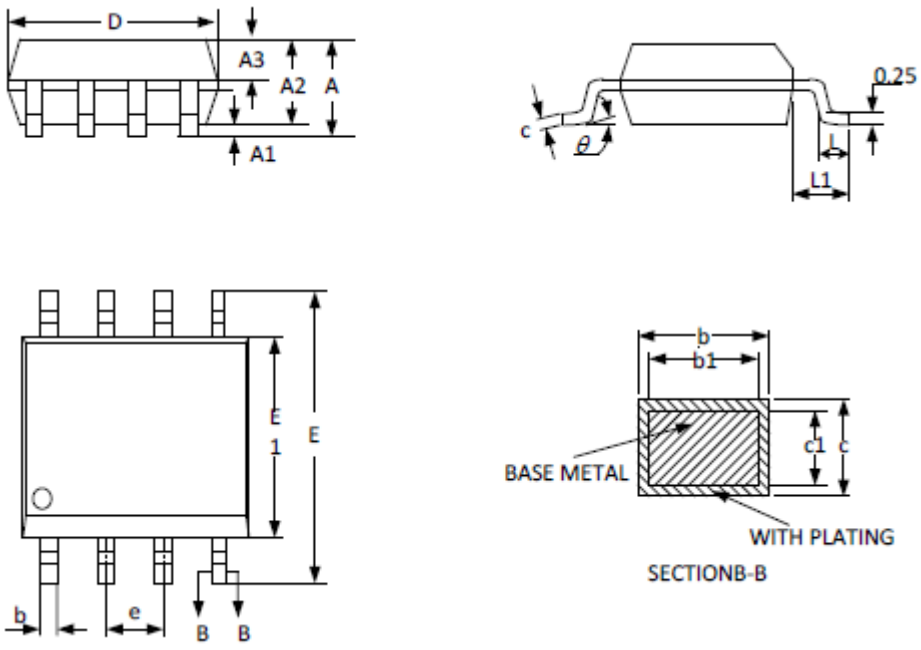
IN1	IN2	OUT1	OUT2	工作状态	工作电流
L	L	Hi-Z	Hi-Z	待命状态	I_{VM_OFF}
H	L	H	L	前进	I_{VM_ON}
L	H	L	H	后退	I_{VM_ON}
H	H	L	L	刹车	I_{VM_ON}

输入-输出波形



封装外形尺寸图

SOP8



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	--	--	1.77
A1	0.08	0.18	0.28
A2	1.20	1.40	1.60
A3	0.55	0.65	0.75
b	0.39	--	0.48
b1	0.38	0.41	0.43
c	0.21	--	0.26
c1	0.19	0.20	0.21
D	4.70	4.90	5.10
E	5.80	6.00	6.20
E1	3.70	3.90	4.10
e	1.27BSC		
L	0.50	0.65	0.80
L1	1.05BSC		
θ	0	--	8°

订购信息

P/N	PKG	QTY
MX6208(MS)	SOIC-8	4000

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