ÿ Product introduction

UMW L9110S is a two-channel push-pull power amplifier ASIC designed for controlling drive motors. It will discrete circuit Integrated in a single IC, the peripheral components are reduced, the cost is reduced, and the reliability of the whole machine is improved.

The UMW L9110S chip has two input control terminals, which can control the two output terminals to directly drive the forward and reverse rotation of the motor. The chip is widely It is used in circuits such as toy car motor drive, pulse electromagnetic valve drive, stepping motor drive and switching power tube.

ÿ Product Features

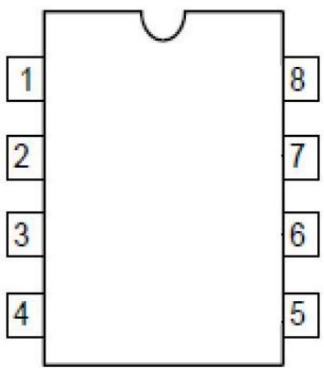
- Power supply voltage range 2.2 ~ 6.5V
- Low quiescent operating current
- Low saturation pressure drop
- VCC=5V, the maximum working current is 200mA
- TTL/CMOS output level compatible, can be directly connected with CPU I/O
- Fewer external components
- Package form: DIP8, SOP8

ÿ Product use

- Pulse solenoid valve drive
- Toy car motor drive
- Stepping motor drive
- Drive switching power tube

ÿ Package form and pin definition function

Pin number	Pin definition	Function Description
1	OH	A channel output pin
2	VCC	Positive power supply
3	VCC	Positive power supply
4	OB	B channel output pin
5	GND	power ground
6	IA	A channel input
7	IB	B channel input
8	GND	power ground



ÿ Limit parameters

Project	symbol		limit value	unit
voltage	VCC	Description	-0.3ÿ+8.0	IN
	come	Supply voltage Input voltage	-0.3ÿVCC	IN
Dissipated power	PD	SOP8/DIP8 Operating	500	mW
temperature	Tw	Temperature Range Storage	-30—85	ÿ
	Tc	Temperature Range	-50—125	
	Th	Soldering Temperature	260	ÿ,10s

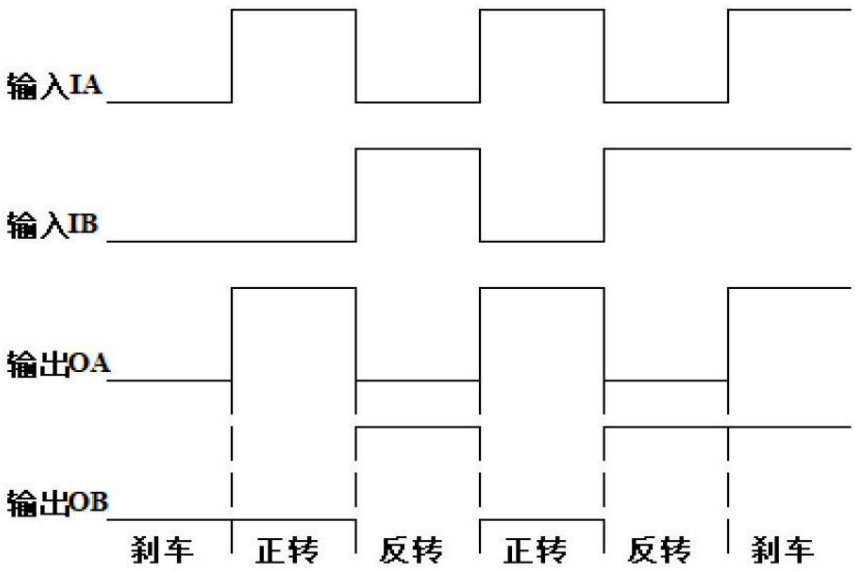
Note: The limit parameter refers to the limit value that cannot be exceeded under any conditions. If this limit value is exceeded, it may cause physical damage such as product deterioration;

At the same time, it cannot guarantee that the chip can work normally when the parameters are close to the limit.

ÿ Electrical characteristic parameters (TA=25ÿ VCC=5V)

symbol	Item	Test Conditions	Min	Typ	Max	Unit
VCC	Operating		2.2	5	6.5	IN
ICC	Voltage	no load		0.2	2	uA
IIN	Quiescent Current Input Current	VIN=VDD or GND		0.1	2	uA
VINL input low voltage		IAÿIB	0		0.25VCC	IN
VINH input high voltage		IAÿIB	0.7VCC		VCC	IN
VAB1 output saturation voltage		IOUT=100mA		0.19	0.25	IN
VAB2 output saturation voltage		IOUT=180mA		0.36	0.45	IN

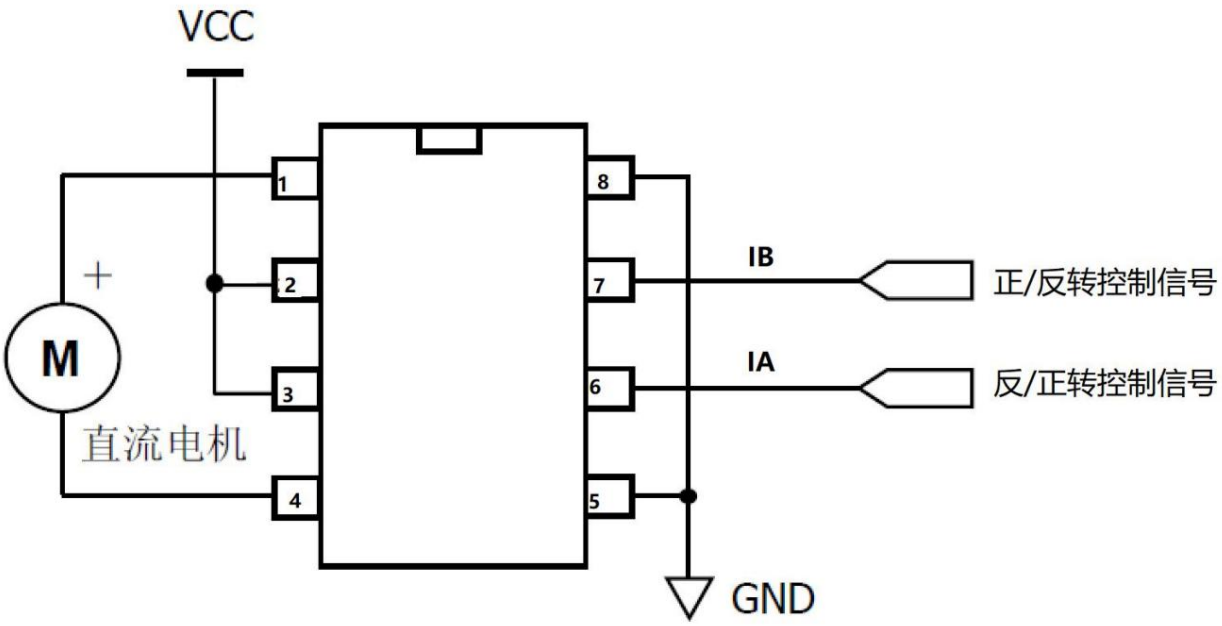
ÿ Input and output waveform diagram

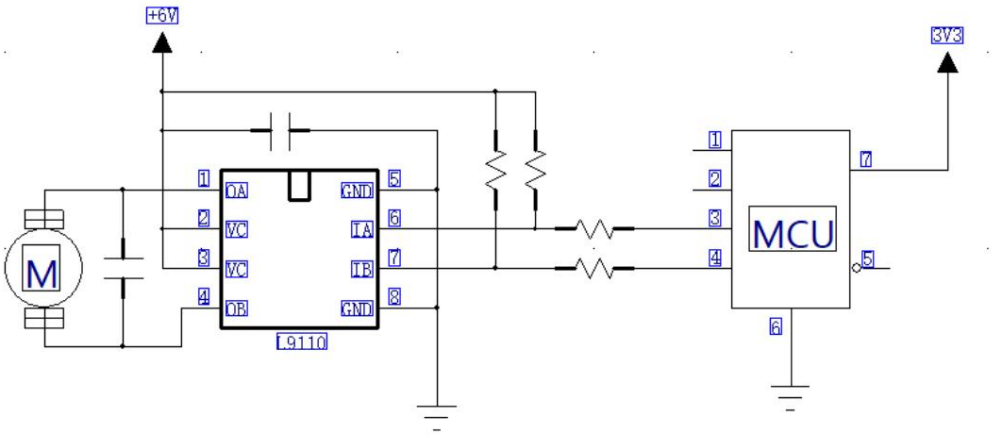


ÿ logic diagram

enter		output		Remark
IA	IB	OH	OB	
L	L	L	L	brake
L	H	L	H	Forward Reverse
H	L	H	L	reverse/forward
H	H	H	H	brake

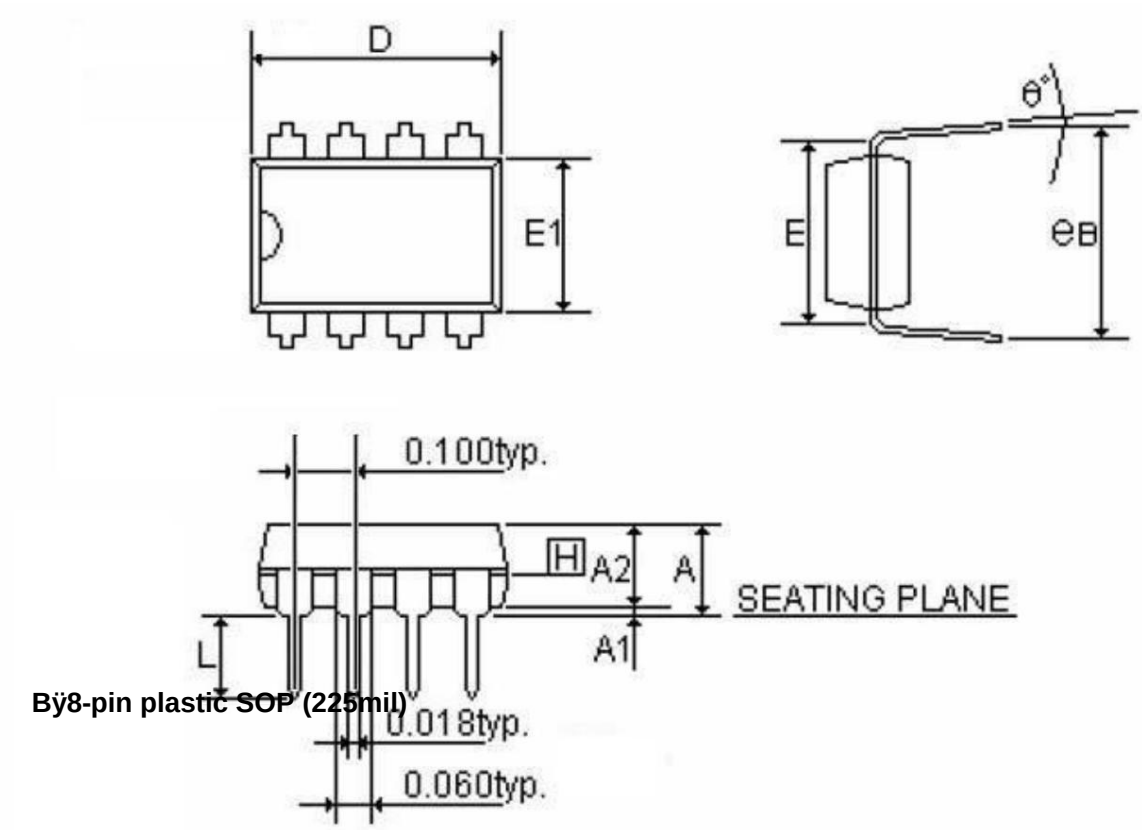
ÿ Typical application





ÿ Packaging information

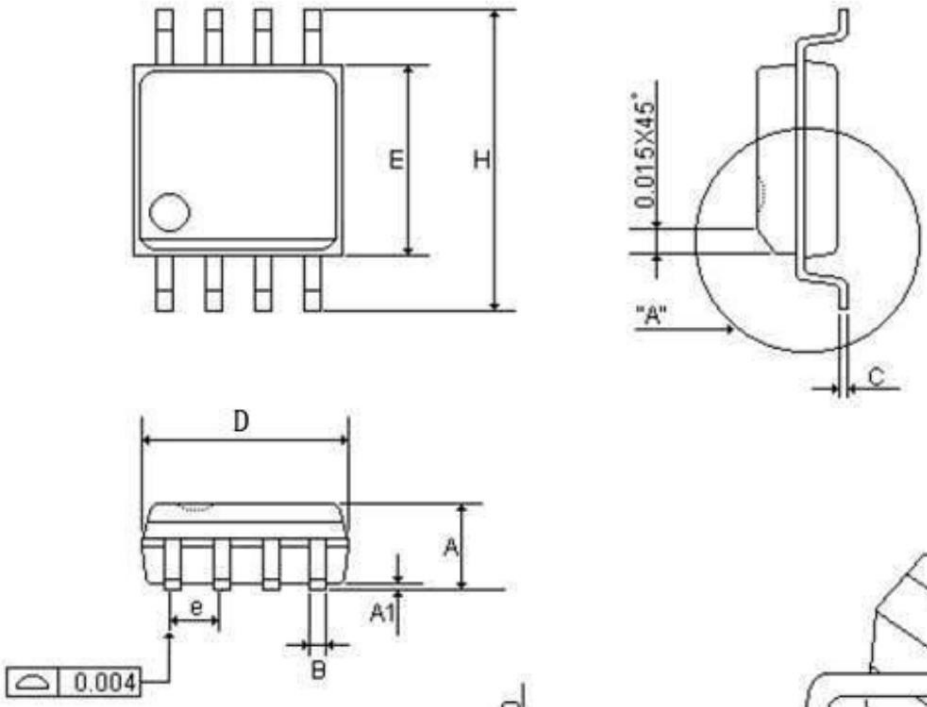
DIP 8



Bÿ8-pin plastic SOP (225mil)

SYMBOLS	MIN	NOR	MAX	MIN	NOR	MAX
	(inch)			(mm)		
A	-	-	0.210	-	-	5.334
A1	0.015	-	-	0.381	-	-
A2	0.125	0.130	0.135	3.175	3.302	3.429
D	0.435	0.455	0.475	15.669	16.050	16.685
E		0.300			7.62	
E1	0.245	0.250	0.255	6.223	6.35	6.477
L	0.115	0.130	0.150	2.921	3.302	3.810
e B	0.335	0.355	0.375	8.509	9.017	9.525
θ°	0°	7°	15°	0°	7°	15°

SOP 8



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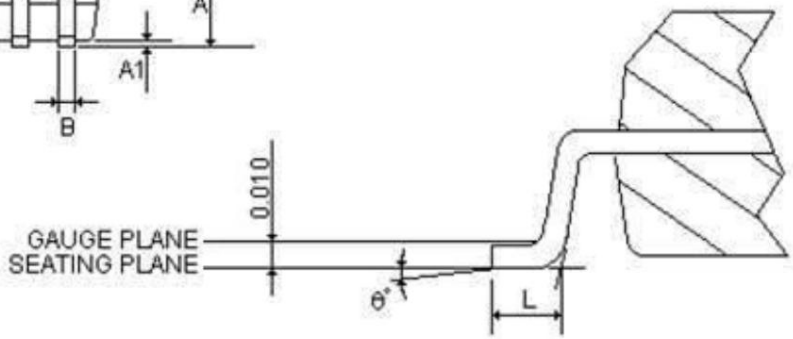

SYMBOLS	MIN	NOR	MAX	MIN	NOR	MAX
	(inch)			(mm)		
A	0.058	0.064	0.068	1.4732	1.6256	1.7272
A1	0.004	-	0.010	0.1016	-	0.254
B	0.013	0.016	0.020	0.3302	0.4064	0.508
C	0.0075	0.008	0.0098	0.1905	0.2032	0.2490
D	0.186	0.191	0.196	5.9944	6.1214	6.1976
E	0.150	0.154	0.157	3.81	3.9116	3.9878
e	-	0.050	-	-	1.27	-
H	0.228	0.236	0.244	5.7912	5.9944	6.1976
L	0.015	0.025	0.050	0.381	0.635	1.27
θ°	0°	-	8°	0°	-	8°