

AN6880

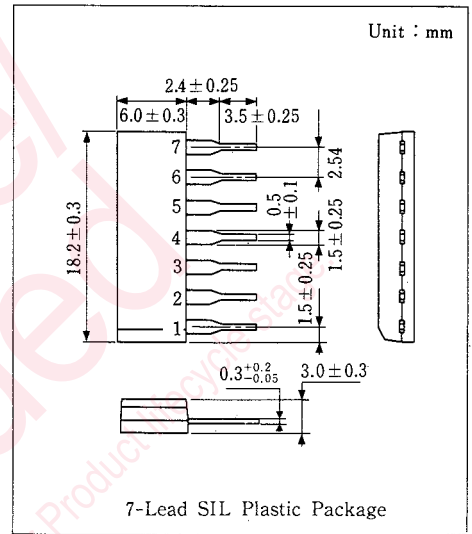
Servo Motor Control Circuit

■ Outline

The AN6880 is an integrated circuit designed for control of a servo motor.

■ Features

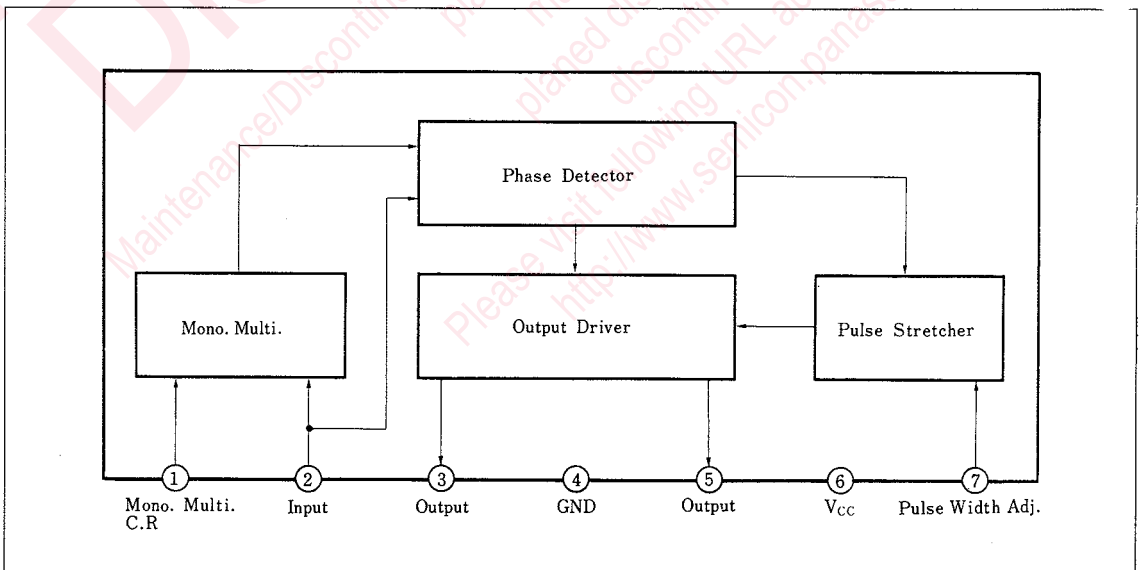
- Wide range of operating supply voltage : 3.5~6.0V
- Low quiescent current
- Large power dissipation : $P_D=600\text{mW}$ max.
- Separate control for deadband and pulse stretch
- Single supply, bi-directional operation



■ Pin

Pin No.	Pin Name
1	Mono. Multi.
2	Input
3	Output
4	GND
5	Output
6	V _{cc}
7	Pulse Width Adj.

■ Block Diagram



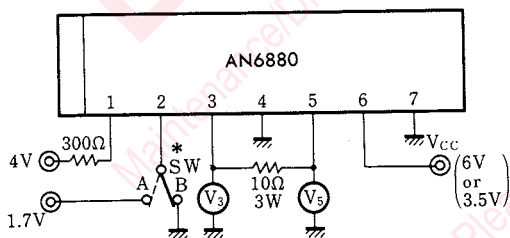
■ Absolute Maximum Ratings (Ta=25°C)

Item		Symbol	Rating	Unit
Supply Voltage		$V_{CC}(V_{6-4})$	6.5	V
Output Current		I_3, I_5	-400 400	mA
Power Dissipation		P_D	600	mW
Temperature	Operating Ambient Temperature	T_{opr}	-10 ~ +60	°C
	Storage Temperature	T_{stg}	-55 ~ +150	°C

■ Electrical Characteristics (Ta=25°C)

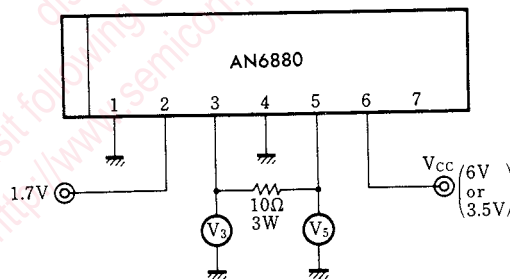
Item		Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Supply Voltage		V_{CC}			3.5		6	V
Quiescent Circuit Current		I_{CQ}		$V_{6-4}=6V, V_{2-4}=0V, V_{7-4}=2.5V$		4		mA
Output Voltage	High level	$V_{OH(1)}$	1	$V_{6-4}=6V, \text{Load } 10\Omega \text{ between Pin③ and Pin⑤}$	4.6			V
	Low level	$V_{OL(1)}$	1				0.7	V
Output Voltage	High level	$V_{OH(2)}$	2		4.6			V
	Low level	$V_{OL(2)}$	2				0.7	V
Output Voltage	High level	$V_{OH(3)}$	1	$V_{6-4}=3.5V, \text{Load } 10\Omega \text{ between Pin③ and Pin⑤}$	2.2			V
	Low level	$V_{OL(3)}$	1				0.45	V
Output Voltage	High level	$V_{OH(4)}$	2		2.2			V
	Low level	$V_{OL(4)}$	2				0.45	V
Input Voltage	High level	I_{IH1}		$V_{6-4}=6V, V_{1-4}=2V$ $V_{2-4}=1.7V$			5	μA
	Low level	I_{IH1}		$V_{6-4}=6V, V_{1-4}=2V$ $V_{2-4}=0.3V$	-2		2	μA

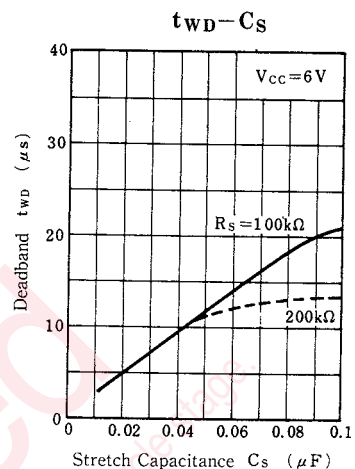
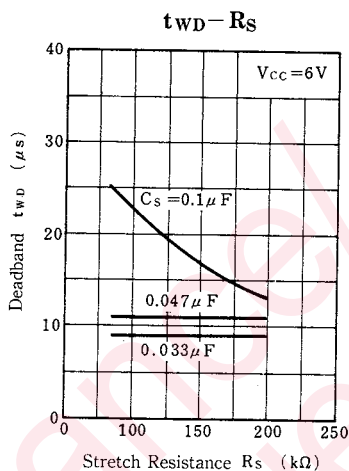
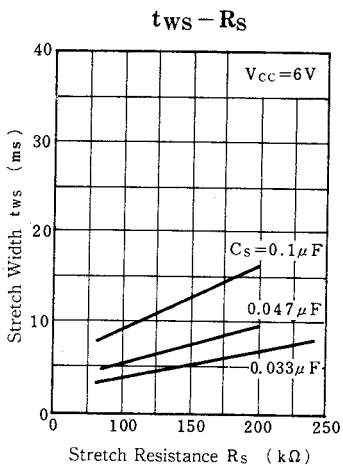
Test Circuit 1 ($V_{OH(1)}, V_{OL(1)}, V_{OH(3)}, V_{OL(3)}$)



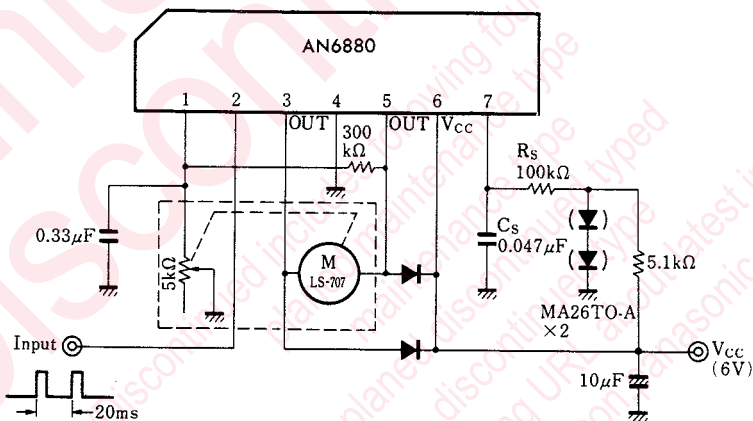
* Measurement is made by changing SW from A to B to set Pin③ to "H" and Pin⑤ to "L".

Test Circuit 2 ($V_{OH(2)}, V_{OL(2)}, V_{OH(4)}, V_{OL(4)}$)





■ Application Circuit



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