

AN6656, AN6656S

Micromotor Forward/Reverse Electronic Governors

■ Overview

The AN6656 and the AN6656S are the electronic governors capable of controlling the forward/reverse speed, fast forward, rewind, and start stop of the micromotors used for the radio/cassette tape recorders, automatic answering telephone sets, and so on.

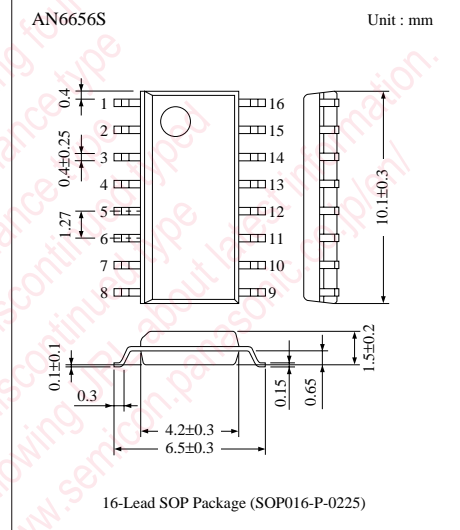
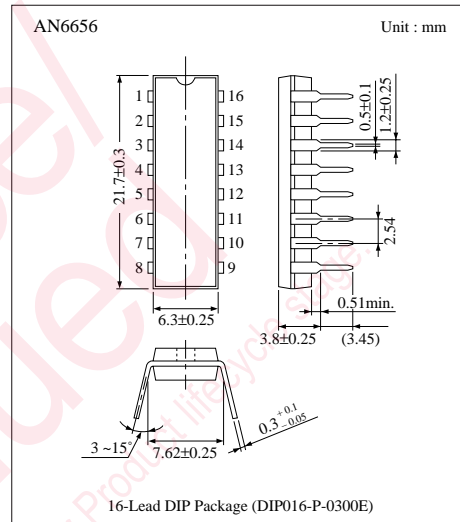
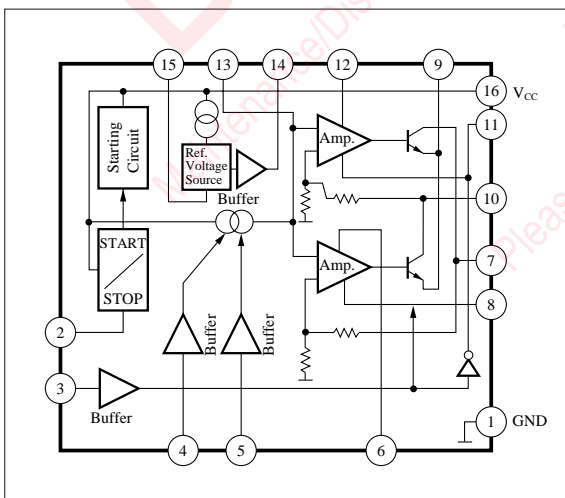
■ Features

- Wide operating supply voltage range : $V_{CC}=1.8V$ to $6V$
- Stable reference voltage (120mV) and easy speed control
- Capable of controlling forward/reverse rotation, fast forward/constant speed, and start/stop via 3 input pins
- Capable of controlling a fast forward/rewind speed
- Large starting torque and maximum control torque
- Good secular drift because of external power transistor
- Provided with the motor stop function ; $I_{CC}=50\mu A$ or less at stop time

■ Applications

- Speed control of the micromotors for the radio cassettes
- Speed control of the micromotors for the microcassettes of the automatic answering telephone sets
- Control of the tape loading motors for the DATs, etc.

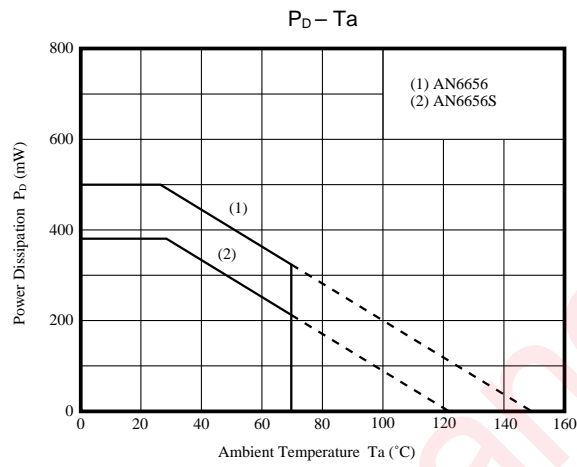
■ Block Diagram



■ Pin Descriptions

Pin No.	Pin Name	Description	I/O	Voltage	Equivalent Circuit
1	GND	GND pin	I	—	—————
2	Start/Stop	Start/stop control pin	I	—	
3	Forward/Reverse	Forward/reverse control pin	I		
4	FF (REW) Switching	FF (REW) speed control pin	I		
5	FF (REW) Speed Control	FF (REW) speed setting pin	O	0.05V	
6	Phase Compensation	Oscillation preventive phase compensation pin	I	0.7V	
7	Drive 1	Motor drive pin 1	O	—	
8	Output Control 1	External transistor control pin 1	O		
9	Load Characteristics Setting	Load characteristics setting pin	O		
10	Drive 2	Motor drive pin 2	O		
11	Output Control 2	External transistor control pin 2	O		
12	Phase Compensation	Oscillation preventive phase compensation pin	I	0.7V	
13	Speed Setting	Speed setting input pin	I	—	
14	Reference Voltage ⊕	Reference voltage ⊕ output pin	O	0.15V	
15	Reference Voltage ⊖	Reference voltage ⊖ output pin	O	0	
16	V _{CC}	V _{CC} pin	I	—	—————

■ Characteristics Curve



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