

AN6607NS

DC Motor Forward/Reverse Dual Speed Electronic Governor

Overview

The AN6607NS is an electronic governor which incorporates the forward/reverse rotation and double speed controls of the DC motors used for radio/cassette tape recorder, and the functions such as fast forward, rewind, brake, and pause.

Features

- Operating supply voltage range : $V_{CC}=8V$ to $16V$
- Stable reference voltage ($1.27V$) and easy speed adjustment
- Large starting torque and maximum control torque
- Good secular drift because of external power transistor
- High-density mounting allowed by the SO package
- Forward/reverse constant speed and double speed controls, and fast forward, brake, and pause functions available by 3-bit input

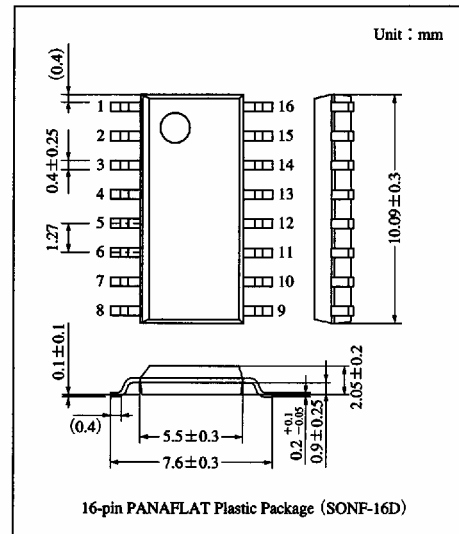
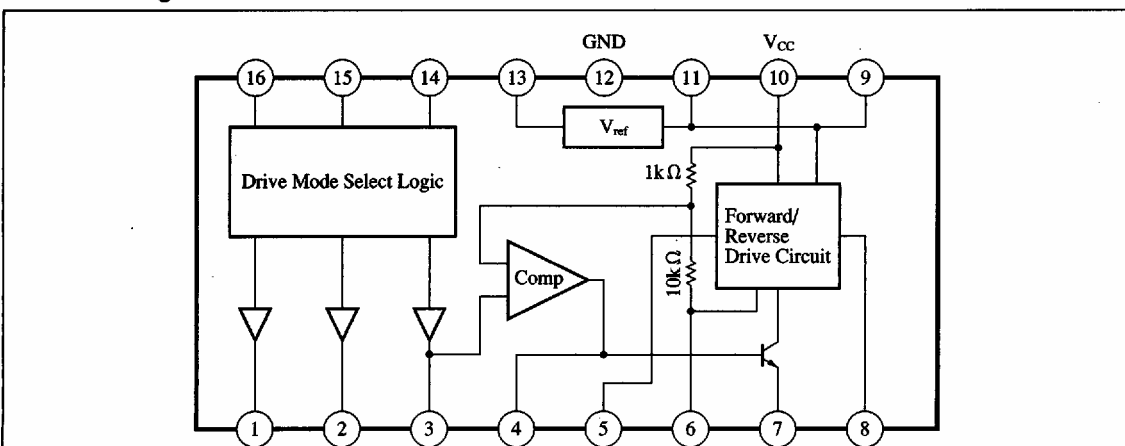
Applications

Cassette decks, radio/cassette tape recorders, car cassette tape players, DC motor control such as DAT, tape loading motor control

Pin Name

Pin No.	Pin name	Pin No.	Pin name
1	Double speed setting	9	Load characteristic setting
2	FF setting	10	V_{CC}
3	Speed adjustment	11	To pin ⑨
4	Phase correction	12	GND
5	Motor drive \oplus	13	Reference voltage \ominus
6	Collector connection	14	Logic input
7	Base connection	15	Logic input
8	Motor drive \ominus	16	Logic input

Block Diagram



Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	18	V
Supply current	I_C	20	mA
Power dissipation	P_D	450	mW
Operating ambient temperature	T_{opr}	-20 to +70	$^\circ\text{C}$
Storage temperature	T_{sg}	-55 to +125	$^\circ\text{C}$

Recommended Operating Range ($T_a=25^\circ\text{C}$)

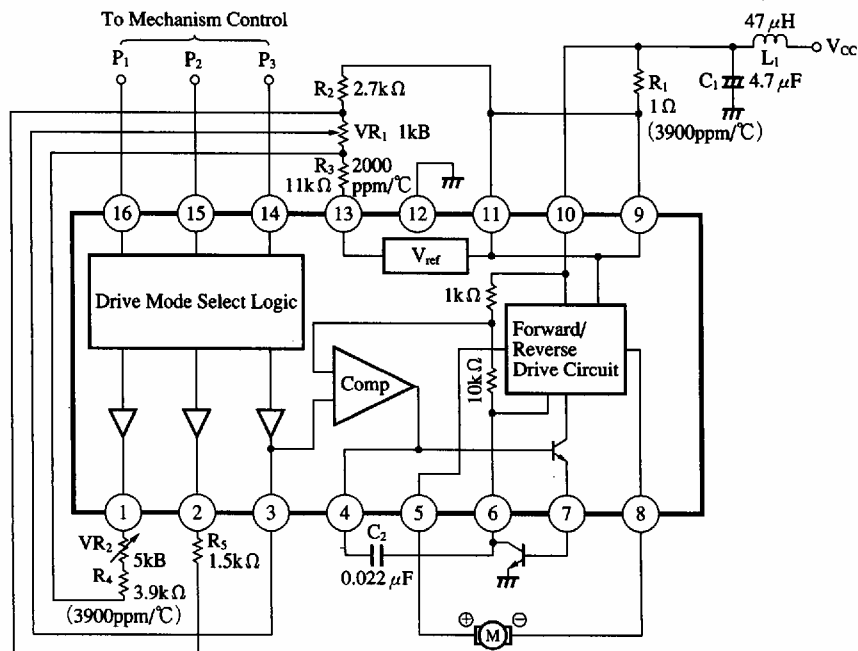
Parameter	Symbol	Range
Operating supply voltage	V_{CC}	8V to 16V

Electrical Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Bias current at no load	I_{bias}	$V_{CC}=12\text{V}$	—	7	15	mA
Reference voltage	V_{ref}	$V_{CC}=12\text{V}$	1.15	1.27	1.4	mA
Rated load start voltage	$V_{CC(s)}$	Supply voltage at which rotation starts	6.5	—	—	V
Rated r.p.m.	N_L	$V_{CC}=12\text{V}$, $N=1600\text{rpm}$	-8.75	—	8.75	%
R.p.m. characteristics on load change	ΔN_L	$V_{CC}=8\text{V}$, $I_L=55\text{mA}$ to 120mA	-20	—	20	rpm
R.p.m. characteristics on voltage change	ΔN_V	$V_{CC}=8\text{V}$ to 16V , $N=1600\text{rpm}$	-22	0	22	rpm
FF/REW r.p.m. difference	ΔN_{Log1}	$V_{CC}=12\text{V}$, $N=5300\text{rpm}$	-3	0	3	%
Output saturation voltage 1	$V_{SAT(1)}$	$V_{CC}=8\text{V}$, $I_O=1\text{A}$	—	—	2	V
Output saturation voltage 2	$V_{SAT(2)}$	$V_{CC}=8\text{V}$, $I_O=1\text{A}$	—	—	1.5	V
R.p.m. characteristics on temperature change	ΔN_A	$V_{CC}=12\text{V}$, $T_a=-10^\circ\text{C}$ to $+60^\circ\text{C}$	—	100	—	ppm/ $^\circ\text{C}$



Application Circuit



This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.