

■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Supply voltage		V_{CC}	14.4	V
Supply current		I_{CC}	50	mA
Output current		I_O	700	mA
Power dissipation	AN6657	P_D	500	mW
	AN6657S		380	
Operating ambient temperature		T_{opr}	-20 to +70	°C
Storage temperature	AN6657	T_{stg}	-55 to +150	°C
	AN6657S		-55 to +125	

■ Recommended Operating Range (Ta=25°C)

Parameter	Symbol	Range
Operating supply voltage range	V_{CC}	4.5V to 14V

■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Bias current	I_{bias}	$V_{CC}=5V$	—	4	10	mA
Prestart current	I_{stop}	$V_{CC}=5V$	—	—	20	μA
Reference voltage	V_{ref}	$V_{CC}=5V$	1.1	1.3	1.5	V
Start voltage	$V_{CC(s)}$	Supply voltage at which a 50mA current flows to Ra	—	—	3	V
Start current	I_{st}	$V_{CC}=4.5V$, $R_a=13\Omega$	130	—	—	mA
Rated load r.p.m.	N_L	$V_{CC}=5V$, $I_L=55mA$, $N=2000rpm$	-10	0	10	%
Forward/reverse r.p.m. difference	ΔN_{Logi}	$V_{CC}=5V$, $I_L=55mA$, $N=2000rpm$	-5	0	5	%
FF/rated r.p.m. ratio	ΔN	$V_{CC}=5V$, $I_L=55mA$, $N=4000rpm$	1.85	2	2.15	times
R.p.m. characteristics on voltage change	ΔN_V	$V_{CC}=4.5V$ to $9V$, $I_L=55mA$	—	—	50	rpm/V
R.p.m. characteristics on load change	ΔN_L	$V_{CC}=4.5V$, $I_L=55mA$ to $90mA$	—	—	120	rpm
Select mode input H	V_H	$V_{CC}=5V$ to $14V$	3	—	6	V
Select mode input L	V_L	$V_{CC}=5V$ to $14V$	0	—	0.7	V
Current limiting starting voltage	V_{Lim}	$V_{CC}=9V$, $R_T=1.3\Omega$	0.55	0.62	0.7	V
Ref. voltage temperature characteristic	$\Delta V_T/Ta$	$V_{CC}=5V$, $Ta=0^\circ C$ to $60^\circ C$	—	0.015	—	%/°C

■ Application Circuit

