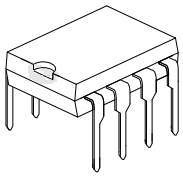
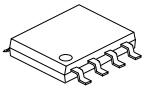
AN6650

LINEAR INTEGRATED CIRCUIT

MOTOR SPEED CONTROL CIRCUIT



DIP-8



SOP-8

■ DESCRIPTION

The UTC **AN6650** is a monolithic integrated circuit, designed for the tape recorder.

■ FEATURES

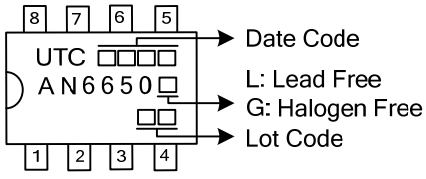
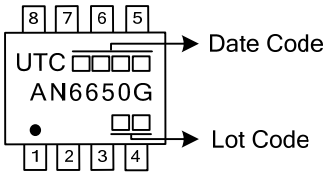
*Wide Operating Supply Voltage: V_{CC}=1.8V-7V
*Few External Components
*Easy Speed Control Mode

■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
AN6650L-D08-T	AN6650G-D08-T	DIP-8	Tube
-	AN6650G-S08-R	SOP-8	Tape Reel

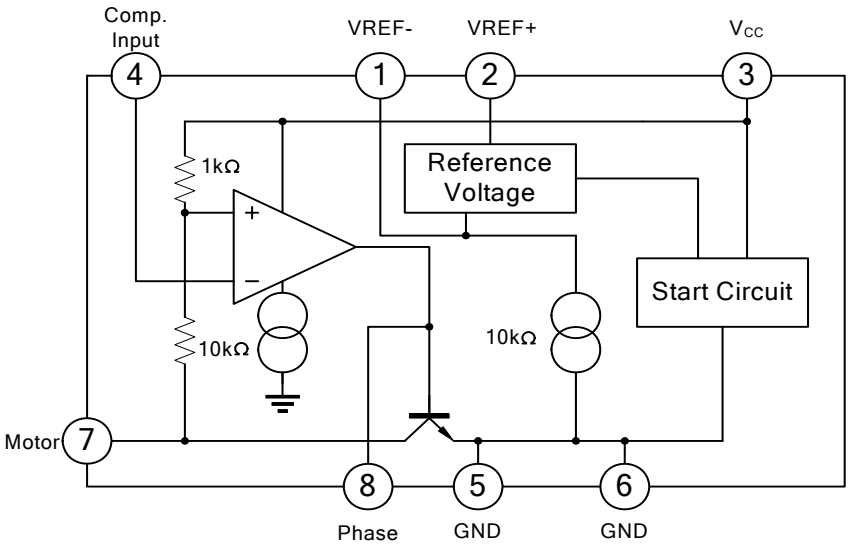
AN6650L-D08-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube, R: Tape Reel (2) D08: DIP-8, S08: SOP-8 (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING

DIP-8	SOP-8
	

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■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V_{CC}	7.5	V
Terminal Voltage		Vn (n=1,2,3,4)	-0.5 ~ 7.5	V
Terminal 8 Voltage		V_8	-0.5 ~ 1	V
Supply Current		I_{CC} (Note)	1000	mA
Terminal 7 Current		I_7	1000	mA
Power Dissipation	DIP-8	P_D	750	mW
	SOP-8		360	
Operating Temperature		T_{OPR}	-20 ~ +85	°C
Storage Temperature		T_{STG}	-40 ~ +150	°C

Note: Test Time<5μs

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, Vcc=6V, f=1KHz, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	TEST CIRCUIT	MIN	TYP	MAX	UNIT
Quiescent Circuit Current	I_{CC}	V_{CC}=3V	1		2	3	mA
Reference Voltage	V_{REF}	V_{CC}=3V，R2-1>10kΩ	4	1.20	1.28	1.35	V
Start Voltage	$V_{CC(S)}$	30mA current flow to Ra	2		1.0	1.2	V
Saturation Voltage	$V_{(SAT)}$	V_{CC}=1.8V, Ra=4.7Ω	2		0.2	0.5	V
Reference Voltage Characteristics	$\frac{\Delta V_{REF}}{V_{REF} \Delta V_{CC}}$	V_{CC}=1.8V ~ 7.0V	1	-1.25	0.1	1.25	%/V
Output Voltage Characteristics	$\frac{\Delta V_A}{V_A \Delta V_{CC}}$	V_{CC}=1.8V ~ 7.0V	3	-1.2	0.1	1.2	%/V
Reference Voltage Current Characteristics	$\frac{\Delta V_{REF}}{V_{REF} \Delta I_7}$	I_7=1mA ~ 20mA	4	-0.2	0.01	0.2	%/mA
Reference Voltage Temperature Characteristics	$\frac{\Delta V_{REF}}{V_{REF} \Delta T_A}$	T_A=-20 ~ +60°C, V_{CC}=3.0V	4		0.01		%/°C

■ TEST CIRCUIT

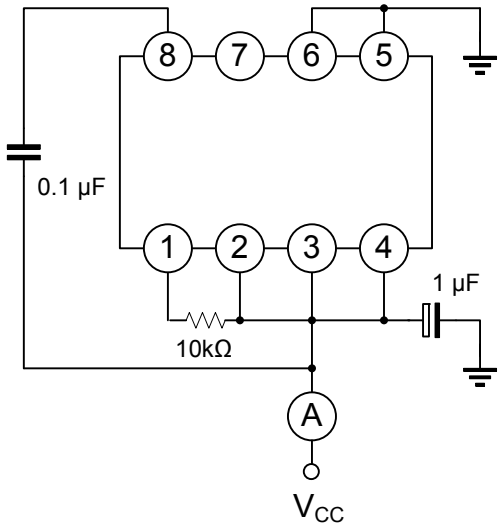


Fig.1 (Icc, $\frac{\triangle V_{REF}}{V_{REF}} / \triangle V_{CC}$)

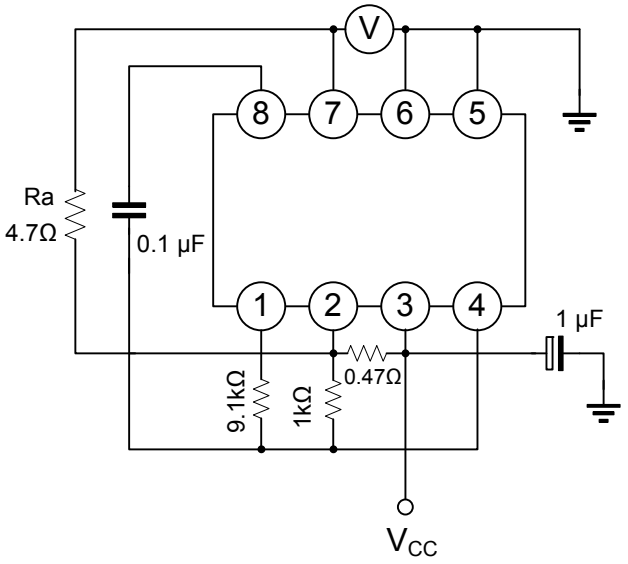


Fig.2 (Vcc(s), V_{SAT})

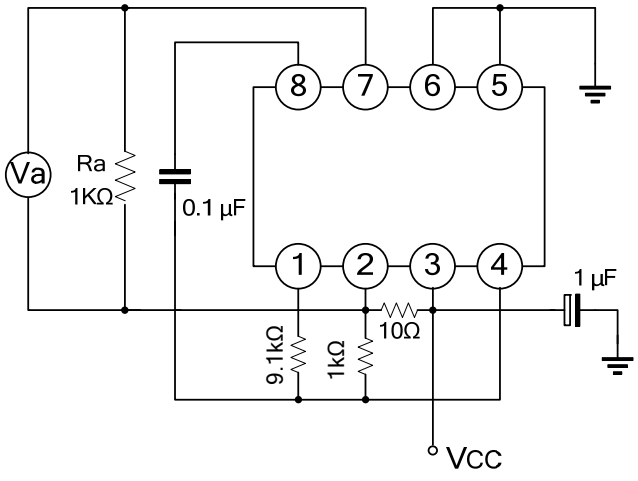


Fig.3 ($\frac{\triangle V_A}{V_A} / \triangle V_{CC}$)

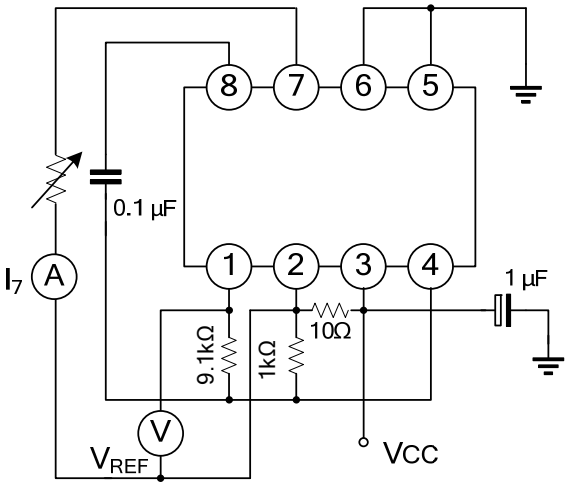


Fig.4 ($\frac{\triangle V_{REF}}{V_{REF}} / \triangle I_7$, $\frac{\triangle V_{REF}}{V_{REF}} / \triangle T_A$)

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