



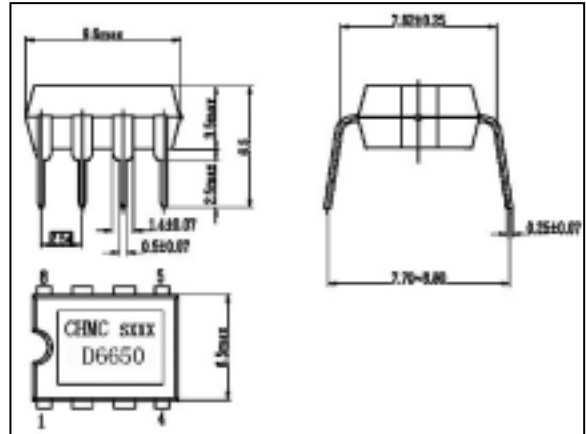
MOTOR SPEED CONTROL CIRCUIT D6650

GENERAL DESCRIPTION

The D6650 is a monolithic integrated circuit designed for the tape recorder.

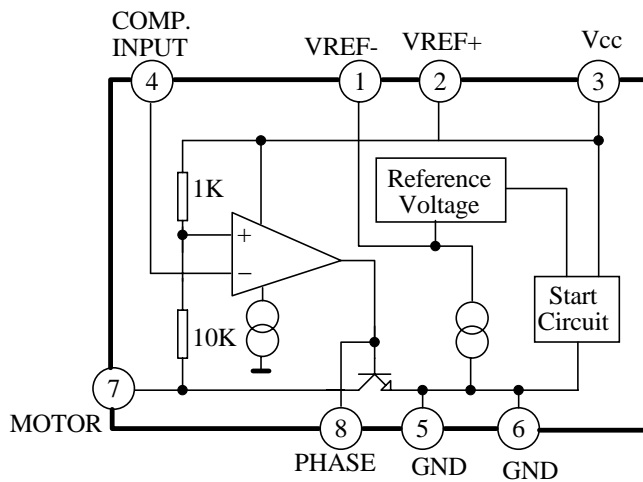
FEATURES

- Wide operating supply voltage : $V_{cc}=1.8V\sim 7V$
- Few external components
- Easy Speed control mode

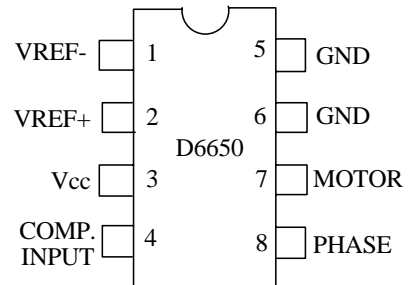


Outline Drawing

BLOCK DIAGRAM



PINNING



MAXIMUM RATINGS

Characteristics	Symbol	Value	Unit
Supply Voltage	V _{cc}	7.5	V
Terminal Voltage	V _n (n=1,2,3,4)	-0.5~7.5	V
Terminal 8 Voltage	V ₈	-0.5~1	V
Supply Current	I _{cc}	1000	mA
Terminal 7 Current	I ₇	1000	mA
Power Dissipation	P _D	750	mW
Operating Temperature Range	T _{opr}	-20~70	°C
Storage Temperature Range	T _{stg}	-40~150	°C

ELECTRICAL CHARACTERISTICS(Unless otherwise specified V_{cc}=6V, T_{amb}=25°C, f=1kHz)

Characteristic	Symbol	Test Condition	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, R ₂₋₁ >10kΩ	4	1.20	1.28	1.35	V
Start Voltage	V _{cc(s)}	30mA current flow to R _a	2		1.0	1.2	V
Saturation Voltage	V _{sat}	V _{cc} =1.8V, R _a =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

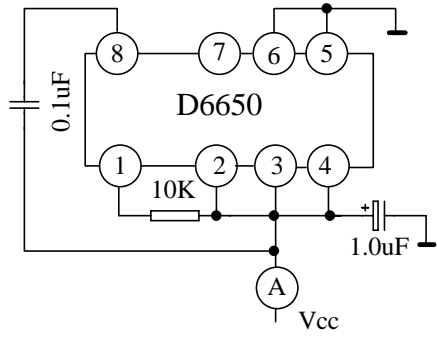


Fig.1

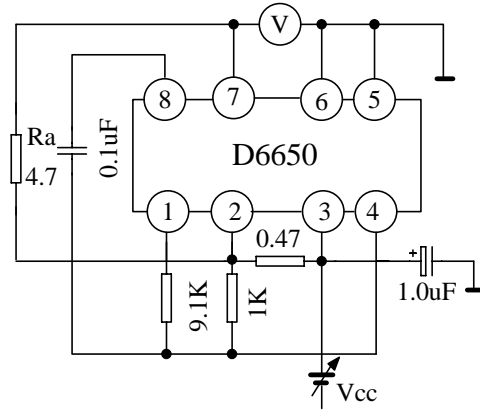


Fig.2

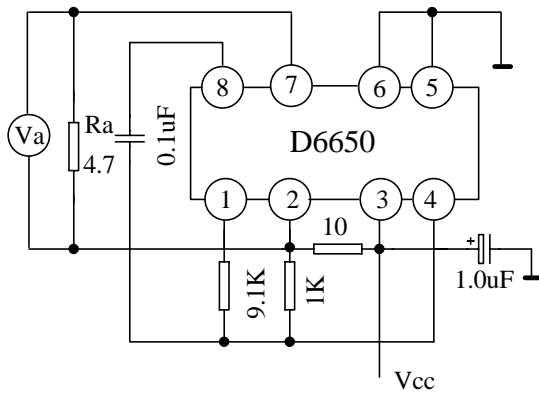


Fig.3

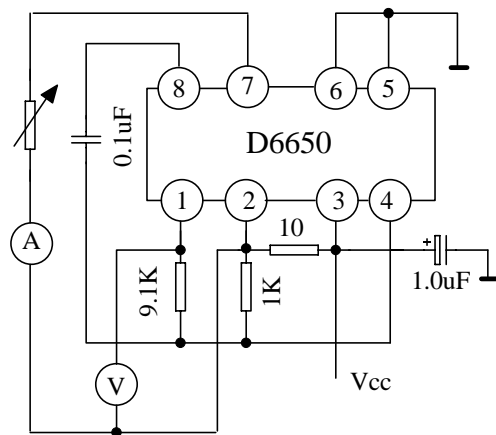


Fig.4

Application Circuit

