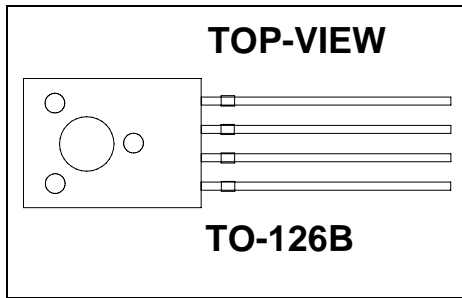




**Description**

The SE6651 is an IC designed for the rotating speed control of a compact DC motor, which is used for tape recorder, record player, etc.

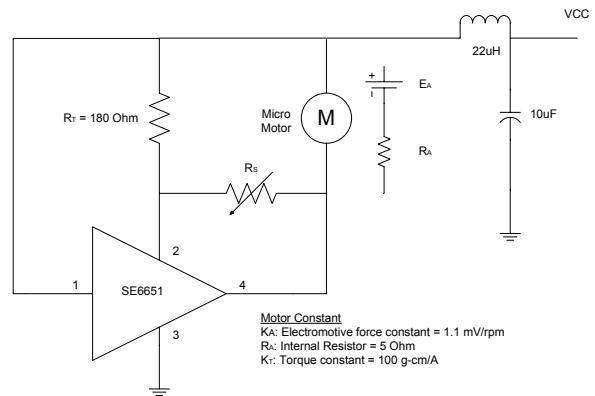
**Pin Configuration**



**Feature**

- Small four-lead plastic package for compact motor.
- Fewer external parts.
- Stable low reference voltage (1.0V typical), wide motor speed setting.
- Highly stable operation over a wide range of supply voltage and torque supply voltage, VCC = 3.5V – 14.4V.
- Built-in reverse voltage protection.

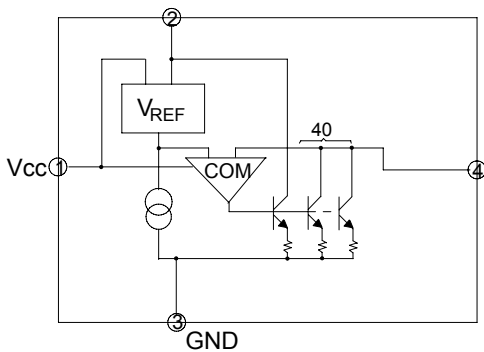
**Typical Application**



**Pin Description**

Pin No.	Pin Name
1	VCC
2	Control Pin
3	GND
4	Motor Pin

**Block Diagram**





**Absolute Maximum Rating**

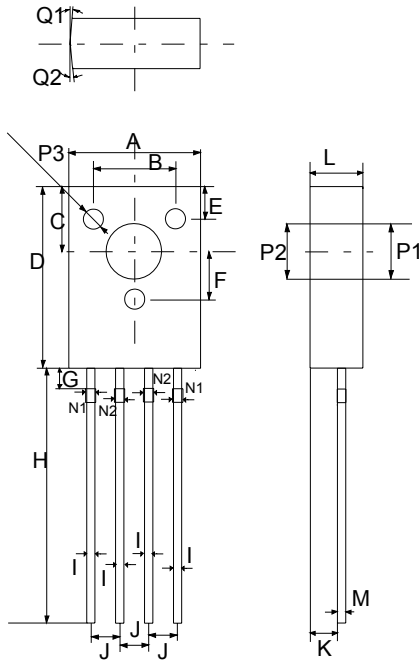
Parameter	Symbol	Maximum	Unit
Supply Voltage	$V_{CC}$	14.4	V
Supply Current	$I_{CC}^2$	2000	mA
Power Dissipation	$P_D^1$	1300	mW
Operating Ambient Temperature	$T_A$	-20 ~ +75	°C
Storage Temperature	$T_{STG}$	-40 ~ +150	°C

**Electrical Characteristics**

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Reference Voltage	$V_{REF}$	$V_{CC} = 6V, R_A = 1K\Omega$		1.02		V
Bias Current	$I_{BIAS}$	$V_{CC} = 6V$		0.484		mA
Current Proportional Constance	K	$V_{CC} = 6V,$ $DI_4 = 40mA$		41.53		
Line Regulation	$\frac{\Delta V_{REF}}{V_{REF}} / V_{CC}$	$V_{CC} = 3.5V \sim 14V,$ $R_A = 1K\Omega$		0.13		%/V
Load Regulation	$\frac{\Delta V_{REF}}{V_{REF}} / I_4$	$I_4 = 50mA \sim 200mA$		0.04		%/mA
Saturation Voltage	$V_{SAT}$	$V_{CC} = 4.2V, R_A = 5.0$		1.54		V
Voltage Characteristics	$\frac{\Delta K}{K} / V_{CC}$	$V_{CC} = 3.5V \sim 14V,$ $DI_4 = 40mA$		0.68		%/V
Current Characteristics	$\frac{\Delta K}{K} / I_4$	$I_4 = 50mA \sim 200mA$		-0.008		%/mA
Temperature Characteristics	$\frac{\Delta V_{REF}}{V_{REF}} / T_A$	$T_A = -20^\circ C \sim 75^\circ C,$ $V_{CC} = 6V, R_A = 1K\Omega$		0.05		%/°C
Temperature Characteristics	$\frac{\Delta K}{K} / T_A$	$T_A = -20^\circ C \sim 75^\circ C,$ $DI_4 = 40mA$		0.001		%/°C



**Outline Drawing for TO-126B**



**TO-126B**

DIMENSIONS				
DIM <sup>N</sup>	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.312	0.328	7.800	8.200
B	0.196	0.204	4.900	5.100
C	0.156	0.164	3.900	4.100
D	0.432	0.448	10.800	11.200
E	0.076	0.084	1.900	2.100
F	0.116	0.124	2.900	3.100
G	0.046	0.054	1.155	1.355
H	0.560	0.640	14.000	16.000
I	0.024	0.024	0.600	0.600
J	0.071	0.071	1.778	1.778
K	0.066	0.070	1.650	1.750
L	0.124	0.132	3.100	3.300
M	0.019	0.021	0.485	0.515
N1	0.028	0.028	0.700	0.700
N2	0.024	0.024	0.600	0.600
P1	0.128	0.128	3.200	3.200
P2	0.122	0.122	3.050	3.050
Q1	3°		3°	
Q2	4°		4°	



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