

GENERAL USE ELECTRONIC GOVERNOR

—YD6220

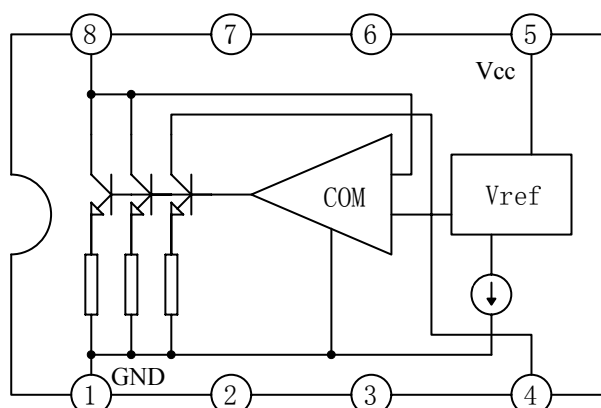
DESCRIPTION

The YD6220 is a monolithic IC developed for speed control of general use DC motors.

FEATURES

- *Wide range of working power supply voltage range ($V_{cc}=3.5V\sim 16V$);
- *Very large starting torque at low voltage;
- *Large power dissipation allowable by using the PCB as a heat sink;
- *Various DC motors can be driven by changing the external constants.

BLOCK DIAGRAM



NO.	1	4	5	8	2/3/6/7
SYMBOL	GND	CON	Vcc	OUT	NC

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ABSOLUTE MAXIMUM RATINGS (T_{amb}=25℃)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V _{CC}	18	V
Power Dissipation (Note)	P _D	1.4	W
Operating Temperature	T _{opr}	-25 to +75	℃
Storage Temperature	T _{stg}	-55 to +125	℃

Note: PCB(Copper-surfaced)9cm², T ≤ 1.0 Sec

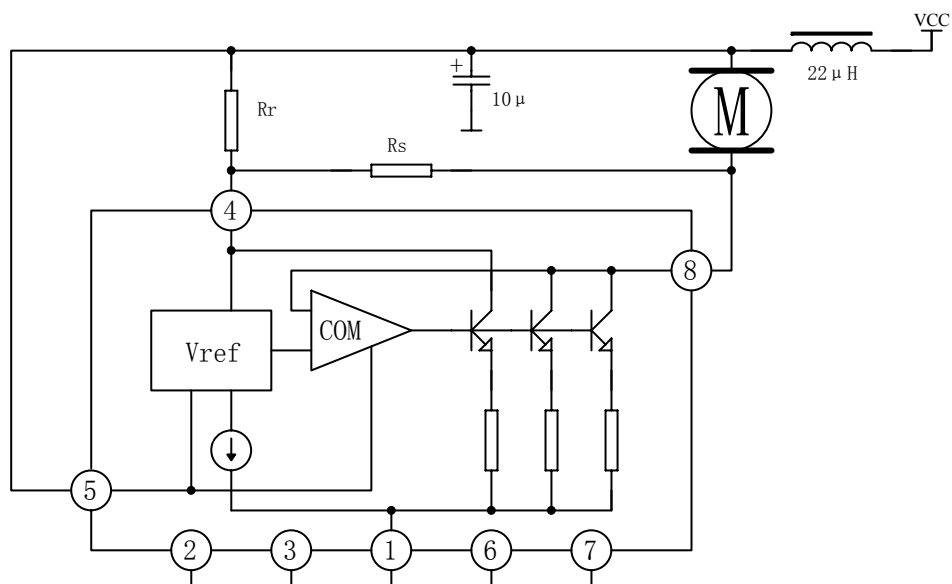
ELECTRICAL CHARACTERISTICS

(T_{amb}=25℃, V_{CC}=12V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V _{CC}	Load: 8g-cm	3.5	12	16	V
Bias Current	I ₄	R _M =180 Ω	0.5	0.8	1.2	mA
Output Saturate Voltage	V _{sat}	V _{CC} =4.2V, R _M =4.4 Ω		1.5	2.0	V
Reference Voltage	V _{ref}	I _M =10mA	1.10	1.27	1.40	V
Current Ratio	K	R _{M1} =44 Ω , R _{M2} =33 Ω	18	20	22	
Voltage Feature of Reference Voltage	$\frac{\Delta V_{ref}}{V_{ref}} / \Delta V_{CC}$	I _M =100mA, V _{CC} =6.3~16V		0.06		%/V
Voltage Feature of Current Ratio	$\frac{\Delta K}{K} / \Delta V_{CC}$	I _M =100mA, V _{CC} =6.3~16V		0.4		%/V
Current Feature of Reference Voltage	$\frac{\Delta V_{ref}}{V_{ref}} / \Delta I_M$	I _M =30~200mA		-0.02		%/mA
Current Feature of Current Ratio	$\frac{\Delta K}{K} / \Delta I_M$	I _M =30~200mA		-0.02		%/mA
Temperature Feature of Reference Voltage	$\frac{\Delta V_{ref}}{V_{ref}} / \Delta T_a$	I _M =100mA, T _{amb} =-25~+75℃		0.01		%/℃
Temperature Feature of Current ratio	$\frac{\Delta K}{K} / \Delta T_a$	I _M =100mA, T _{amb} =-25~+75℃		0.01		%/℃

APPLICATION CIRCUIT

$$R_r < R_m \times 20$$



OUTLINE DRAWING

DIP-8

unit:mm

