



BA6220

LINEAR INTEGRATED CIRCUIT

GENERAL USE ELECTRONIC GOVERNOR

DESCRIPTION

The UTC **BA6220** is a monolithic integrated circuit, developed for speed control of general use DC motors.

FEATURES

- * Wide range of working power supply voltage range ($V_{CC}= 3.5V - 16V$).
- * Very large starting torque at the low voltage.
- * Large permissible loss due to effective utilization of substrate radiation.
- * Usable for various DC motors by means of changing constants of the external components.

APPLICATION

- * Radio cassette tape recorders

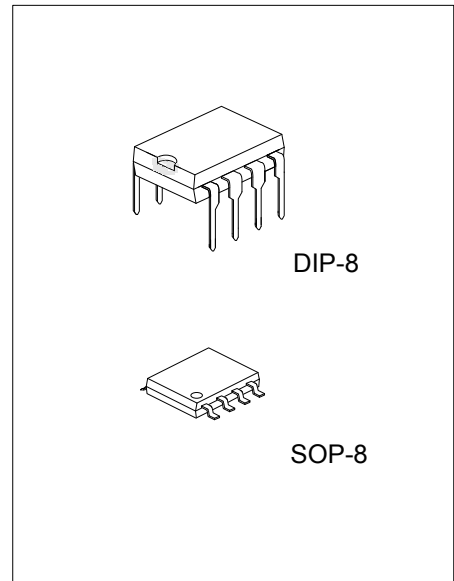
ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
BA6220L-D08-T	BA6220G-D08-T	DIP-8	Tube
-	BA6220G-S08-R	SOP-8	Tape Reel

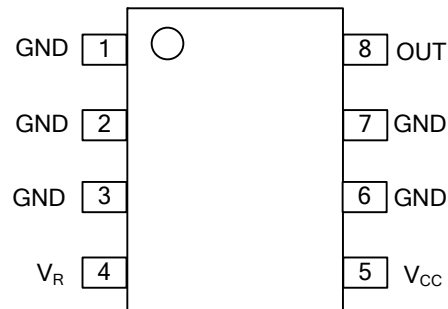
<p>BA6220L-D08-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel (2) D08: DIP-8, S08: SOP-8 (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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MARKING

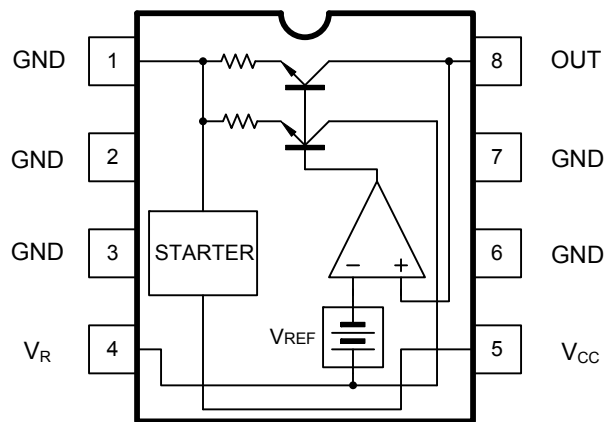
DIP-8	SOP-8
<p>UTC □□□□ → Date Code L: Lead Free G: Halogen Free □□ → Lot Code</p>	<p>UTC □□□□ → Date Code □□ → Lot Code</p>



■ PIN CONFIGURATION



■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V _{CC}	18	V
Power Dissipation(Note 1)	DIP-8	1.4	W
	SOP-8	0.8	W
Operating Temperature	T _{OPR}	-25 ~ +75	°C
Storage Temperature	T _{STG}	-55 ~ +125	°C

Note 1. PCB (Copper-surfaced) 9cm², T 1.0mm.

2. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

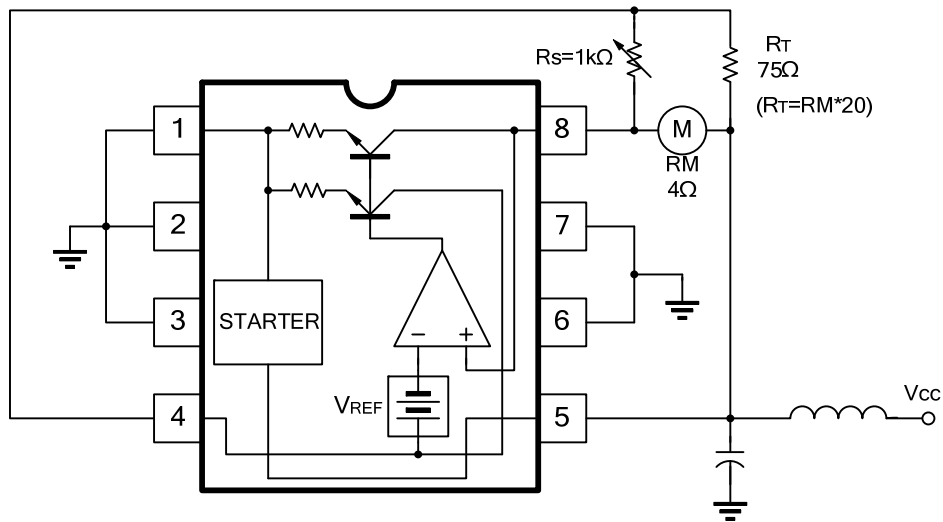
■ RECOMMENDED OPERATING CONDITIONS (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Supply Voltage	V _{CC}	Loader: 8g-cm	3.5		16	V

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, V_{CC}=12V, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Saturate Voltage	V _{SAT}	V _{CC} =4.2V, R _M =4.4Ω (Fig.3)		1.5	2.0	V
Reference Voltage	V _{REF}	I _M =10mA (Fig.1)	1.10	1.27	1.40	V
Current Ratio	K	R _M =33 - 44Ω (Fig.2)	18	20	22	
Voltage Feature of Reference Voltage	ΔV _{REF} /V _{REF} /ΔV _{CC}	I _M =100mA, V _{CC} =6.3 - 16V (Fig.1)		0.06		%/V
Voltage Feature of Current Ratio	ΔK/K/ΔV _{CC}	I _M =100mA, V _{CC} =6.3 - 16V (Fig.2)		0.4		%/V
Bias Current	I _{BIAS}	R _M =180Ω (Fig.4)	0.5	0.8	1.2	mA
Current Feature of Reference Voltage	ΔV _{REF} /V _{REF} /ΔI _M	I _M =30 - 200mA (Fig.1)		-0.02		%/mA
Current Feature of Current Ratio	ΔK/K/ΔI _M	I _M =30 - 200mA (Fig.2)		-0.02		%/mA
Temperature Feature of Reference Voltage	ΔV _{REF} /V _{REF} /ΔT _A	I _M =100mA, T _A =-25 ~ 75°C (Fig.1)		0.01		%/°C
Temperature Feature of Current ratio	ΔK/K/ΔT _A	I _M =100mA, T _A =-25 ~ 75°C (Fig.2)		0.01		%/°C

APPLICATION CIRCUIT



TEST CIRCUIT

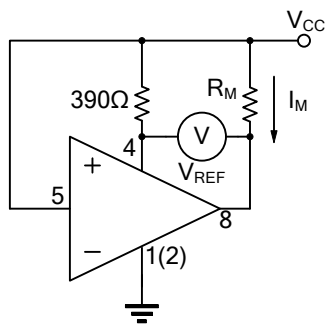


Fig. 1

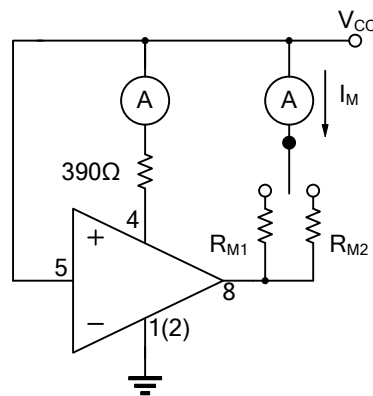


Fig. 2

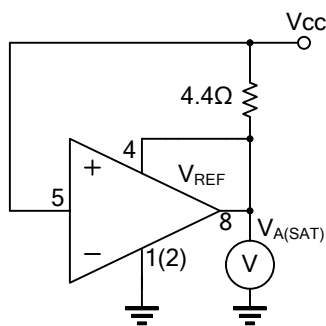


Fig. 3

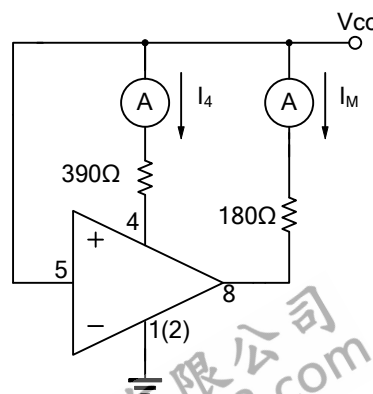


Fig. 4

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