

UTC BA6220 LINEAR INTEGRATED CIRCUIT

GENERAL USE ELECTRONIC GOVERNOR

DESCRIPTION

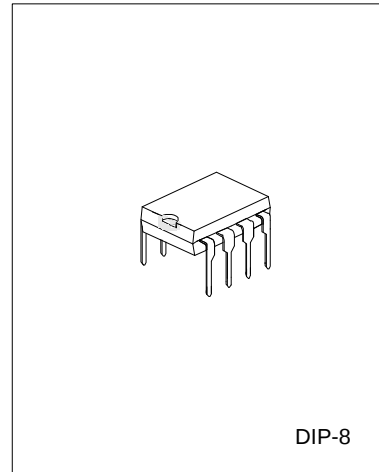
The UTC BA6220 is a monolithic integrated circuit, developed for speed control of general use DC motors.

FEATURES

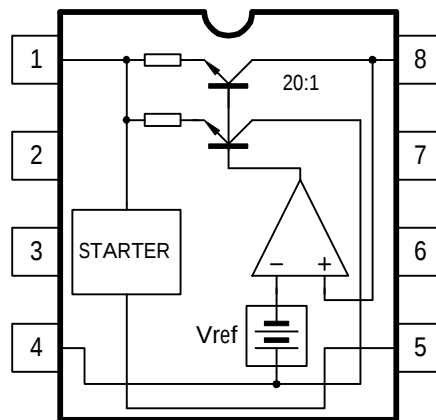
- *Wide range of working power supply voltage range ($V_{cc} = 3.5V - 16V$).
- *Very large starting torque at the low voltage.
- *Large permissible loss due to effective utilization of substrate radiation.
- *Usable for various DC motors by means of changing constants of the external components.

APPLICATION

- *Radio cassette tape recorders



BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS(TA=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	18	V
Power Dissipation(note 1)	Pd	1.4	W
Operating Temperature	Topr	-25 to 75	°C
Storage Temperature	Tstg	-55 to 125	°C

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

RECOMMENDED OPERATING CONDITIONS(TA=25°C)

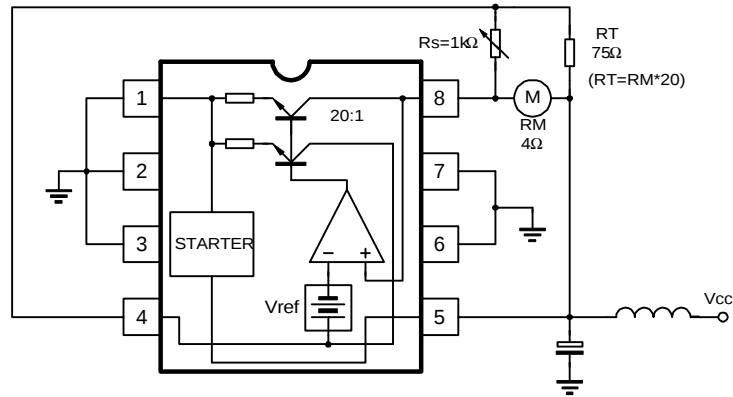
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP.	MAX	UNIT
Operating Supply Voltage	Vcc	Loader: 8g-cm	3.5		16	V

ELECTRICAL CHARACTERISTICS(TA=25°C ,VCC=12V)

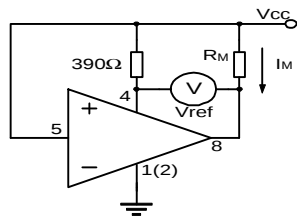
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP.	MAX	UNIT	TEST CIRCUIT
Bias Current	I4	RM=180Ω	0.5	0.8	1.2	mA	Fig.d
Output Saturate Voltage	Vsat	Vcc=4.2V,RM=4.4Ω		1.5	2.0	V	Fig.c
Reference Voltage	Vref	Im=10mA	1.10	1.27	1.40	V	Fig.a
Current Ratio	K	RM=33 - 44Ω	18	20	22		Fig.b
Volatge Feature of Reference Voltage	$\Delta V_{ref}/V_{ref}/\Delta V_{cc}$	Im=100mA, Vcc=6.3 - 16V		0.06		%/V	Fig.a
Volatge Feature of Current Ratio	$\Delta K/K/\Delta V_{cc}$	Im=100mA, Vcc=6.3 - 16V		0.4		%/V	Fig.b
Current Feature of Reference Voltage	$\Delta V_{ref}/V_{ref}/\Delta I_m$	Im=30 - 200mA		-0.02		%/mA	Fig.a
Current Feature of Current Ratio	$\Delta K/K/\Delta I_m$	Im=30 - 200mA		-0.02		%/mA	Fig.b
Temperature Feature of Reference Voltage	$\Delta V_{ref}/V_{ref}/\Delta T_a$	Im=100mA, Ta=-25 - 75°C		0.01		%/°C	Fig.a
Temperature Feature of Current ratio	$\Delta K/K/\Delta T_a$	Im=100mA, Ta=-25 - 75°C		0.01		%/°C	Fig.b

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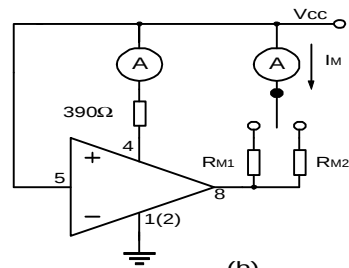
APPLICATION CIRCUIT



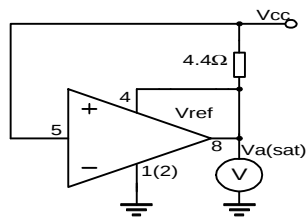
TEST CIRCUIT



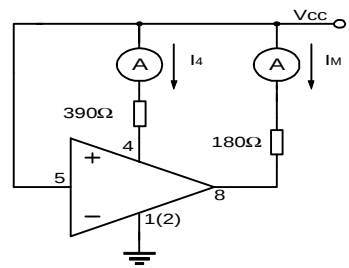
(a)



(b)



(c)



(d)