


Continued from preceding page.

DRIVER ARRAYS (monolithic integrated circuit)

Type Number	Page	Case			Circuit Drawing No.	Circuit Functions & Applications	Main Specifications
		Package	Pins	Package No.			
LB1293	189	DIP	16	3064	3044	6-Channel NPN Input Type High Voltage (55V) Driver Array	6-channel version of LB1291
LB1294	190	DIP	16	3064	3045	6-Channel NPN Input Type High Voltage (60V) Driver Array	6-channel FLI driver, high voltage (60V), high output source current (60mA), suited for interface to system having different supply voltage
⊙LB1760	197	DIP	16	3064	3070	Low-Saturation Type Transistor Array	Printer driver

DC MOTOR CONTROLLERS (monolithic integrated circuit)

Type Number	Page	Case			Circuit Drawing No.	Circuit Functions & Applications	Main Specifications
		Package	Pins	Package No.			
LA5511	140	SEP	4	3027A	2096	Compact DC Motor Speed Controller	Shunt ratio K=50, Vref=1.16V
LA5512	140	SEP	4	3027A	2096	Compact DC Motor Speed Controller	Shunt ratio K=25, Vref=1.16V
LA5521D	140	DIP	8	3001A	2097	Compact DC Motor Speed Controller	3V(4.5V) applications, K=50, Vref=0.2V
LA5521M	141	MFP	8	3032B	2098	Compact DC Motor Speed Controller	Miniflat package version of LA5521D
LA5522	140	SEP	5H	3031A	2097	Compact DC Motor Speed Controller	4.5V, 6V applications, K=50, Vref=0.5V
LA5523	141	SEP	5	3042A	2099	Compact DC Motor Speed Controller	4.5V, 6V applications, K=50, Vref=0.5V
LA5524	141	DIP	8	3001A	2101	Compact DC Motor Speed Controller	3V(4.5V) applications, K=50, Vref=0.22V, with stop pin
LA5524M	141	MFP	8	3032B	2101	Compact DC Motor Speed Controller	Miniflat package version of LA5524D
⊙LA5527	141	DIP	6	3048	2100	Compact DC Motor Speed Controller	3V bridge governor use
⊙LA5528	141	DIP	8	3001A	2100	Compact DC Motor Speed Controller	3V bridge governor use (with stop circuit)
⊙LA5536	142	SEP	5H	3031A	2102	Compact DC Motor Speed Controller	6V, 9V, 12V, 15V applications, Vref=1.2V, with STROBE pin
⊙LA5537	142	SEP	5	3042A	2102	Compact DC Motor Speed Controller	6V, 9V, 12V applications, Vref=1.2V, with STROBE pin
LA5540	142	SEP	4	3027A	2103	Regulator, Brake-Provided Motor Driver	Motor driver for miniprinter, etc. V _{max} =20V, I _{Dmax} =2A
LA5550	142	DIP	16	3006A	2104	FF, REW-Provided Compact DC Motor Speed Controller	3 to 6V applications, FF, REW, brake-provided electronic governor
LA5550M	142	MFP	20	3036B	2104	FF, REW-Provided Compact DC Motor Speed Controller	Miniflat package version of LA5550
⊙LA5555	142	DIP	22S	3059	2105	Bidirectional 6V Bridge Governor	Auto reverse governor use
LB1601	194	DIP	14T	3005A	3059	DC Motor Servo Controller	High drive current 200mA, operating voltage 8 to 16V, high input impedance approx. 1M Ω
LB1620	194	DIP	20S	3021B	3060	3-Phase DD Motor Driver	3-phase motor driver use, suited for VIR capstan, drum motor, etc
LB1622	195	DIP	30S	3047A	3061	3-Phase DD Motor Driver	DIP-30S version of LB1620

LA5536,5537	monolithic linear IC	CIRCUIT DRAWING No.2102
GENERAL-PURPOSE ELECTRONIC GOVERNOR		 3031A(LA5536) 3042A(LA5537)

Use

- Especially suited for speed control of small-sized DC motor for cassette tape recorder, 8mm camera, record player.

Features

- Capable of being mounted easily due to 5-pin SEP.
- Built-in stable reference voltage meeting the requirements for various motors.
- Excellent stability in each characteristic against ambient temperature.
- Strobe pin to control stop, FF, governor.
- Minimum number of external parts required
- Built-in kickback absorber.
- Allowable power dissipation

LA5536	LA5537
1.2W	1.0W

LA5540	monolithic linear IC	CIRCUIT DRAWING No.2103
MOTOR DRIVER WITH REGULATOR, BRAKE		 3027A


Features

- Regulated power supply for motor drive
- On-chip brake circuit
- Small-sized package and minimum number of external parts required

LA5550, 5550M	monolithic linear IC	CIRCUIT DRAWING No.2104
LOW-VOLTAGE DC MOTOR SPEED CONTROLLER WITH LOGIC		 3006A(LA5550), 3036B(LA5550M)

Features

- Wide operating voltage range (1.8 to 8V)
- Has logic circuit which operates in such a manner as 2 logic inputs cause FF, REW, GOVERNOR, BRAKE mode to occur.
- Easy to vary speed at GOVERNOR mode
- Turning OFF strobe pin causes little ICC flow (100 μ A).
- Large starting torque

LA5555	monolithic linear IC	CIRCUIT DRAWING No.2105
BIDIRECTIONAL 6V BRIDGE GOVERNOR		 3059

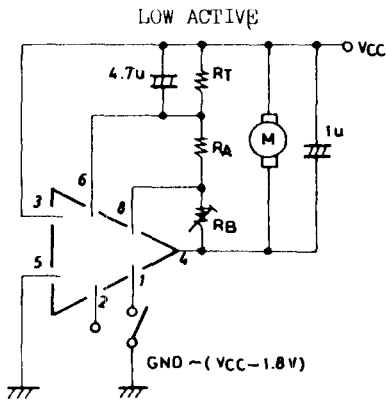
Use

- Car stereo
- Auto reverse cassette recorder

Functions and Features

- Bidirectional speed control of DC motor and function control
- Wide operating voltage range: 3.8V to 18V (2.1V to 12V)
- When the STB pin is set to "L" level, almost no circuit current flows.
- When the BRAKE pin is set to "L" level, the brake is applied at any mode.
- On-chip OP amp (1/2 of LA6358) for tape end detect

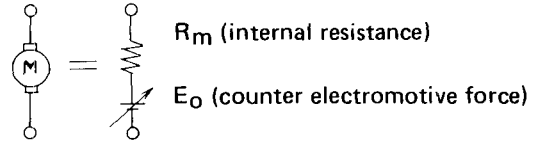
2101:LA5524,5524M
APPLICATION CIRCUIT 1



Unless $R_T(max) < K \cdot R_m(min)$, the operation becomes unstable.

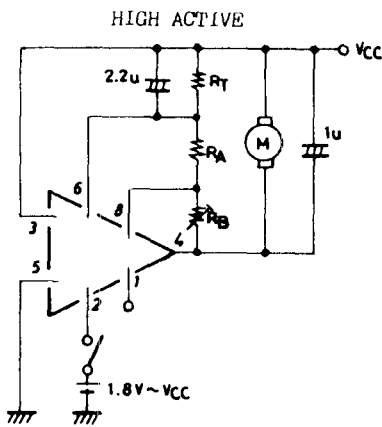
R_A is set to 2kohm.

R_m =Motor DC current



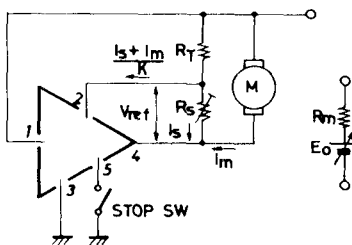
The values of electrolytic capacitors depend on the type of the motor to be used.

APPLICATION CIRCUIT 2



$R_T(max) < K \cdot R_m(min)$
 R_A is set to 2kohm.

2102:LA5536,5537
Sample Application Circuit



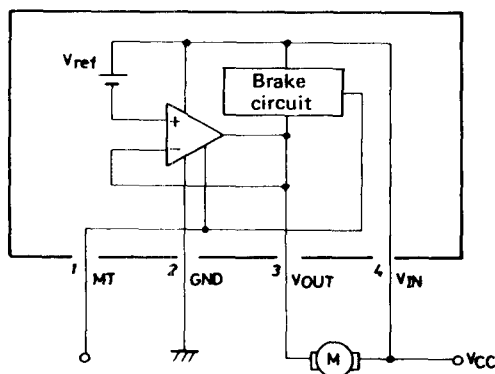
$$\text{From } I_m \cdot R_m + E_0 = R_T \left(\frac{I_s + I_m}{K} \right) + V_{ref},$$

$$E_0 = V_{ref} + R_T \left(1 + \frac{1}{K} \right) I_s + \frac{R_T - R_m}{K} I_m,$$

Assuming $K \cdot R_m \approx R_T$,
The number of revolutions is determined by

$$E_0 = V_{ref} + R_T \left(1 + \frac{1}{K} \right) I_s.$$

2103:LA5540
Block Diagram and Sample Application Circuit



MT	V_0	Remarks
H	5.6V typ	Regulator
L	0V	Brake