

BA6219

BA6219 provides output current up to 2.2A. There are four output modes (normal, reverse, stop (idling), and braking) which are selected by the input logic (two inputs). The output voltage can be set by an external zener diode.

● Features

- (1) Large output current ($I_{Omax}=2.2A$).
- (2) Internal thermal shut down (T.S.D.) circuit.
- (3) The output voltage setting terminal can set the output voltage at any desired value.
- (4) Low stand-by current.

● Electrical Characteristics

Absolute maximum rating ($T_a=25^{\circ}C$)

Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC1} V_{CC2}	24	V
Power dissipation	P_d	2200 ※1	mW
Operating temperature range	T_{OPR}	$-20 \sim +75$	$^{\circ}C$
Storage temperature range	T_{STG}	$-50 \sim +125$	$^{\circ}C$
Output current	I_O	2.2 ※2	A
Input voltage range	V_{IN}	$-0.3 \sim V_{CC1}$	V

※1 To use at temperatures over $T_a=25^{\circ}C$, derate 22mW per $1^{\circ}C$.

※2 Pulse with duty 1/100 : 500 μ s

Electrical characteristics (Unless otherwise specified, $T_a=25^{\circ}C$, $V_{CC}=12V$)

Parameter	Symbol	Standard value			Unit	Condition
		Min.	Typ.	Max.		
Operating voltage range	V_{CC1} V_{CC2}	8	—	18	V	
Quiescent device current 1	I_{CC1}	—	1.2	2.5	mA	pin5, pin6; "L"
Quiescent device current 2	I_{CC2}	—	16	35	mA	Pins 5 and 6 have opposite levels
Quiescent device current 3	I_{CC3}	—	25	60	mA	pin5, pin6; "H"
Pin5 and pin6 input threshold voltage	V_{TH5} V_{TH6}	1.0	2.0	3.0	V	$L \leq 1V$, $H \geq 3V$
Pin2 output voltage "H"	V_{H2}	6.5	—	—	V	$R_L=60\Omega$, $ZD=6.8V$
Pin2 output voltage "L"	V_{L2}	—	—	1.2	V	$R_L=60\Omega$
Pin10 output voltage "H"	V_{H10}	6.5	—	—	V	$R_L=60\Omega$, $ZD=6.8V$
Pin10 output voltage "L"	V_{L10}	—	—	1.2	V	$R_L=60\Omega$

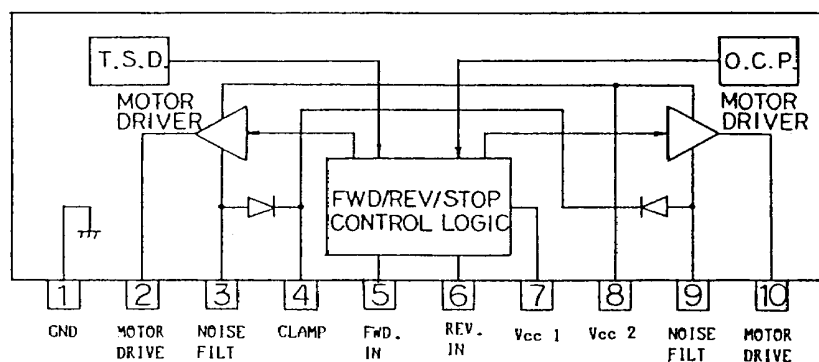
● Input Truth Table

pin5(IN)	pin6(IN)	pin2(OUT)	pin10(OUT)
L	L	OPEN	OPEN
H	L	H	L
L	H	L	H
H	H	L	L

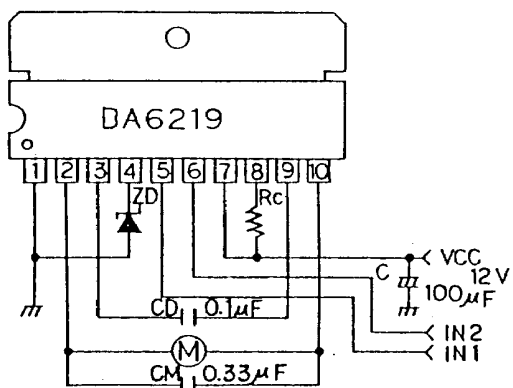
Note : Input level "H" is 3.0V or more.

Input level "L" is 1.0V or less.

● Block Diagram



● Typical Application Circuit



ZD : Zener diode to set the output voltage,
use an appropriate diode.

Rc : Resistor to reduce the collector
dissipation and limit short-circuit
current, use a resistor of about 10Ω.

● Input/output Circuit(equivalent circuit)

