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LD4213

Ignition Controller of Motorcycle IC

Description

LD4213 (analog MB4213) is a controller IC for electronic ignition system of 125ml cylinder motorcycle. It's functioned by the pulses generated by the magnetic sensor, outputs pulses which phases are changed with the rotation speed, trig the SCR to generate ignition sparks.

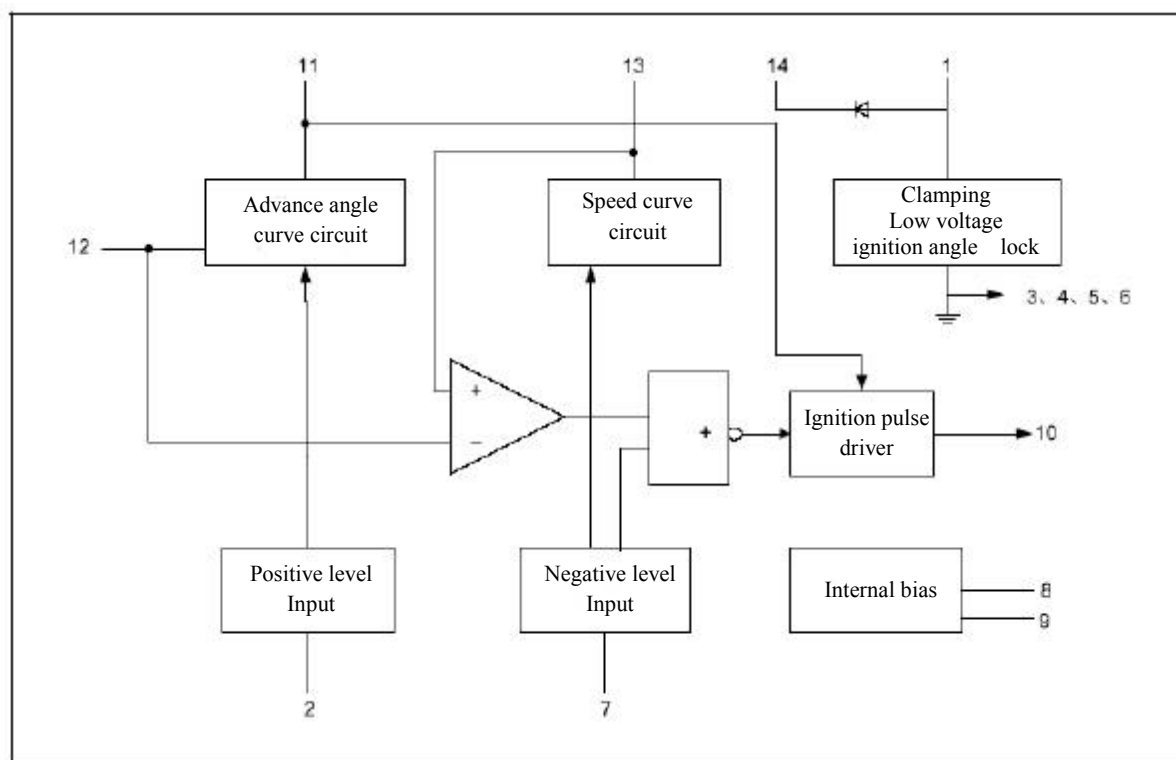
Features

- Power supply by magneto electric motor and clamping at 9.2V
- Less external components and wide applicability
- Low static current, typical is 5mA
- High quality and stability for using 5μm Bipolar process

Ordering Information

Package	Remarks
SOP14	Tubed, Reeled, Pb-free
DIP14	Tubed, Pb-free

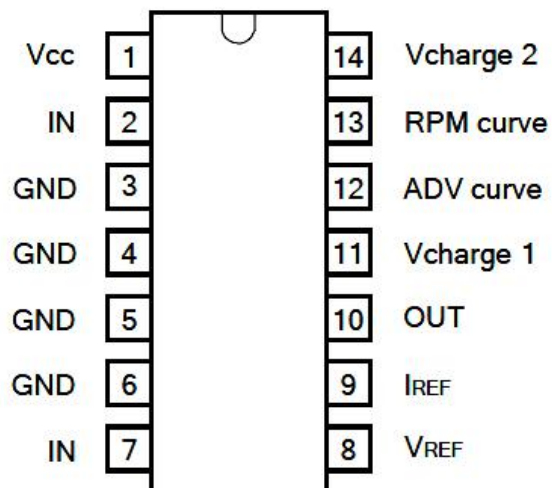
Block Diagram





Pin Configuration

Pin	Symbol	Function
1	VCC	Power voltage
2 7	IN	Input
3 4 5 6	GND	Ground
8	VREF	Reference voltage
9	IREF	Reference current
10	OUT	Output
11	Vcharge1	Discharge pre charge
12	ADV curve	Advance angle curve
13	RPM curve	Speed curve
14	Vcharge2	Speed curve charge



Electrical Characteristics

Parameters	Symbol	Test Conditions	Min	Typ	Max	Unit
DC characteristics (Ta= 25℃, IDC= 5mA)						
Supply Voltage	VCC	I2, I7=0	9.0	9.2	9.5	V
	Rd	I2, I7=0			30	Ω
Low Output Voltage	VOL(10)	I2, I7=0		0.0	0.1	V
	VOL(12)	I2 =0, I7= -100μA			0.1	V
	VOL(13)	I2 =0, I7= -100μA		0.1	0.4	V
High Output Voltage	VOH(10)	I2 =100μA, I7= -100μA	1.6	1.8		V
	VOH(12)	I2 =100μA, I7= 0	4.0	4.4	4.8	V
	VOH(13)	I2 =0, I7=0	8.5	9.0		V
Input Voltage	I13	I2 =0, I7= -100μA			100	μA
Transient characteristics (Ta= 25℃)						
Pulse voltage	Pin10	V(10)	2			V
Reference voltage	Pin12	V(12)		0.9	1.5	V
Leading edge time	Pin12	THL(12)		50	100	μs
Leading edge range	Pin12	VLH(12)	4.2	4.4	4.6	V
Lagging edge rang	Pin12	VHL(12)	6.0	6.4	6.6	V
Pulse width	Pin12	THL(12)	1.95	2.0	2.2	ms

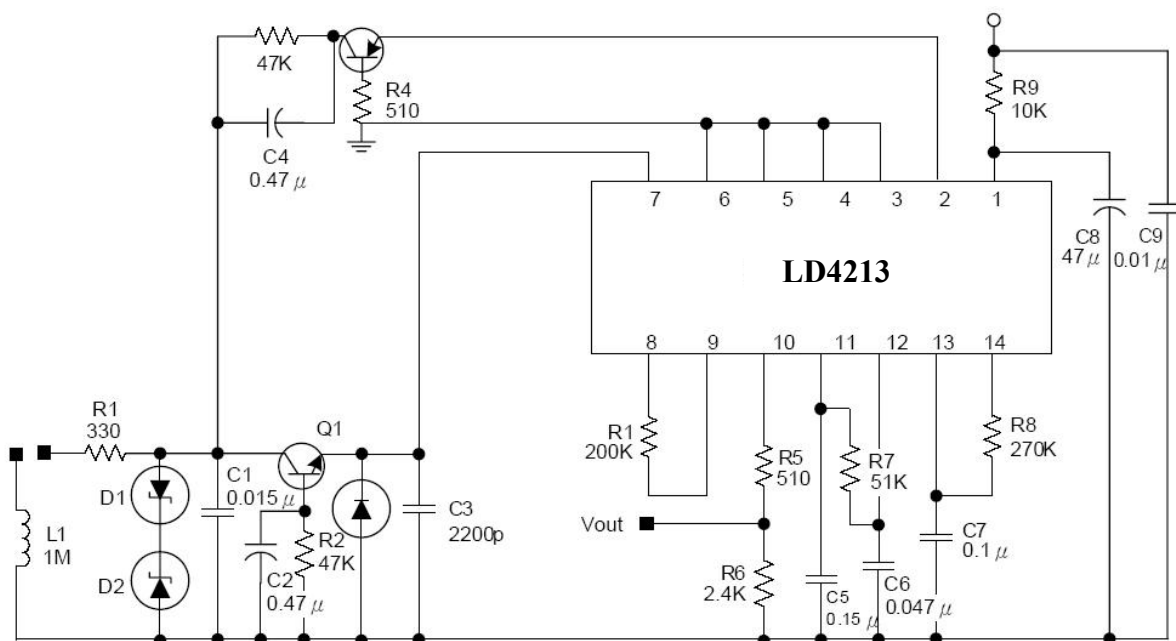


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Application Circuit





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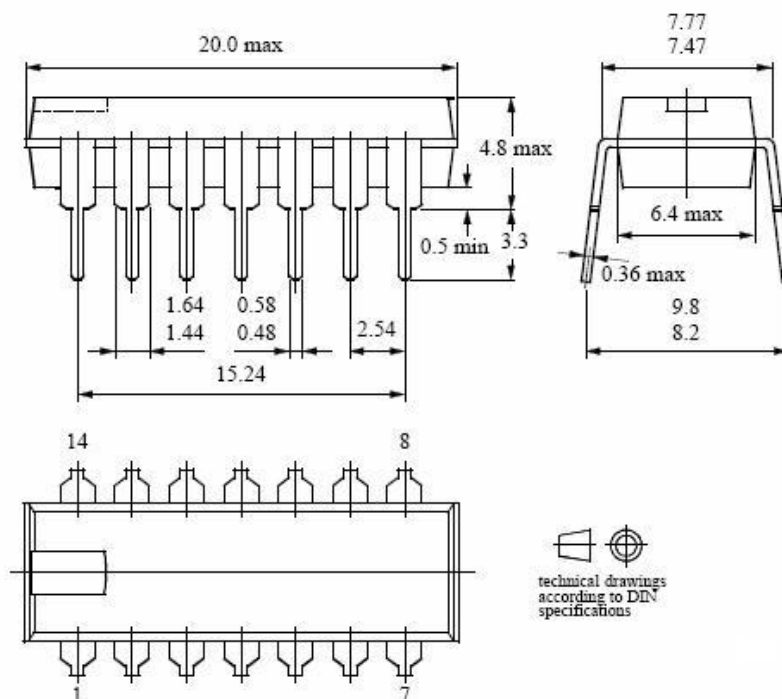
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Package Information

DIP14

Dimensions in mm



SOP14

Dimensions in mm

