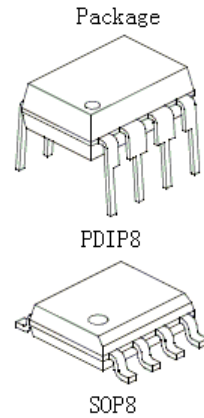


## BL8303 A Special Control IC for Electronic Starter

### Features

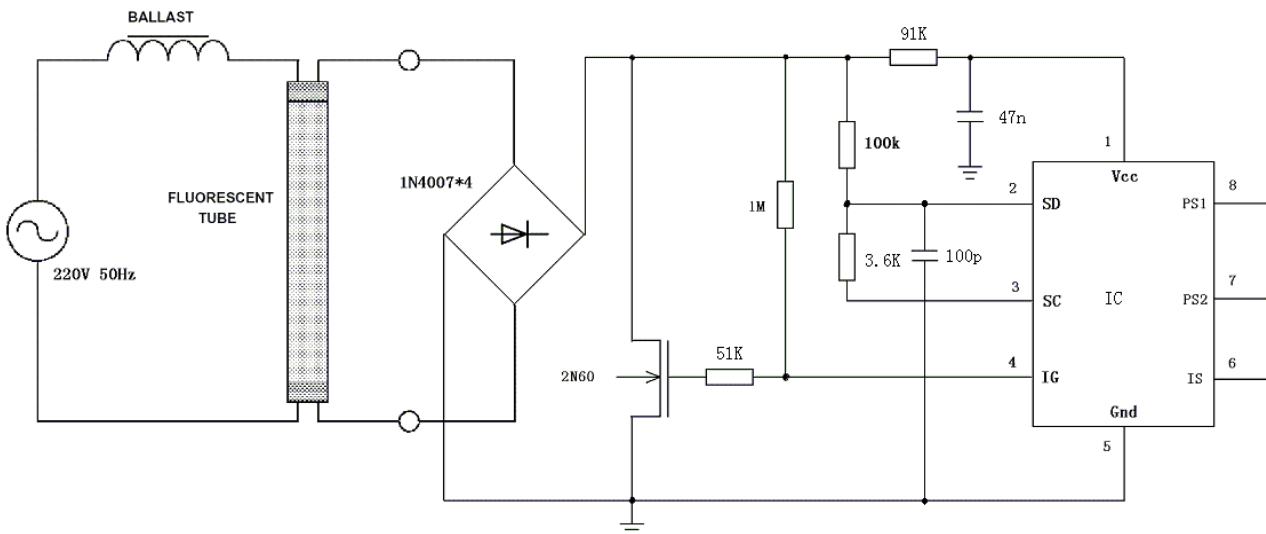
- ✓ Function of preheat and ignition
- ✓ Programmable Preheat time and ignition times
- ✓ Comprehensive fault protection
- ✓ Low power start
- ✓ ESD Protection



### Description

1. BL8303 is a special control IC for Electronic Starter. This integrated circuit performs the function of preheat and ignition do with the controlling of both way switch.
2. During the moment of preheating, BL8303 can insure the re-preheat of different type's lamp by using the PIN7 and PIN8 to setting the preheat time. So that the IC prolongs the lamp life effectively.
3. The IC can re-ignition 4 times or 8 times by setting the PIN6, thereby protects the lamp.

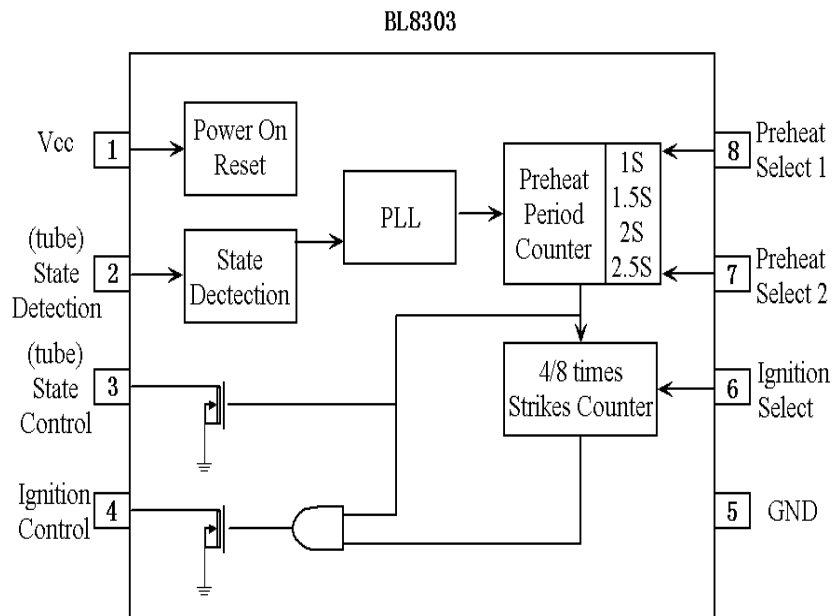
### Typical Application



Preheat time	PIN 7	PIN 8
1s	GND	GND
1.5s	GND	VCC
2s	VCC	GND
2.5s	VCC	VCC

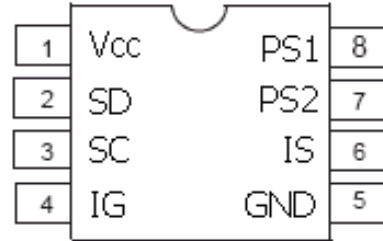
Ignition times	PIN 6
4	GND
8	VCC

### Block Diagram



## Lead Assignments & Definition

PIN	Symbol	Description
1	VCC	Power supply
2	SD	Lamp state inspect input
3	SC	State controlling input
4	IG	Ignition controlling input
5	GND	Power ground
6	IS	Ignition times setting input
7	PS2	Preheat time setting input
8	PS1	Preheat time setting input2



8 LEAD SOP or DIP

## Electronic Characteristic

TA=25°C , VCC=5V

Symbol	Parameter Definition	Test condition	Min	Typ	Max	Unit
Istart	Start-up current	Vcc=2.7V			10	μA
IQ_vcc	Quiescent power drain current	Vcc=5V,SD=100Hz			25	μA
VSC_L	Draw in current capacity of SC output low	Input 1mA to the SC and testing the voltage after 2.5 second			0.5	V
VSC_H	Leakage current of SC output High	Input 5V on the SC and testing the leakage current during the 2.5s (according to Fig.1)			10	μA
VIG_L	Draw in current capacity of IG output low	Input 10mA current to the IG and testing the voltage after 2.5 second			0.5	V
VIG_H	Leakage current of IG output High	Input 5V on the IG and testing the leakage current during the 2.5s (according to Fig.1)			10	μA
TIG	Ignition times	Fig. 1, K1、K2 ON		1		s
Tpre_1	Preheat time of 1s	K1、K2 ON、K3=K4=2		1		s
Tpre_1.5	Preheat time of 1.5s	K1、K2 ON、K4=2		1.5		s
Tpre_2	Preheat time of 2s	K1、K2 ON、K3=2		2		s
Tpre_2.5	Preheat time of 2.5s	Fig.2, K1、K2 ON		2.5		s

Normal Ignition

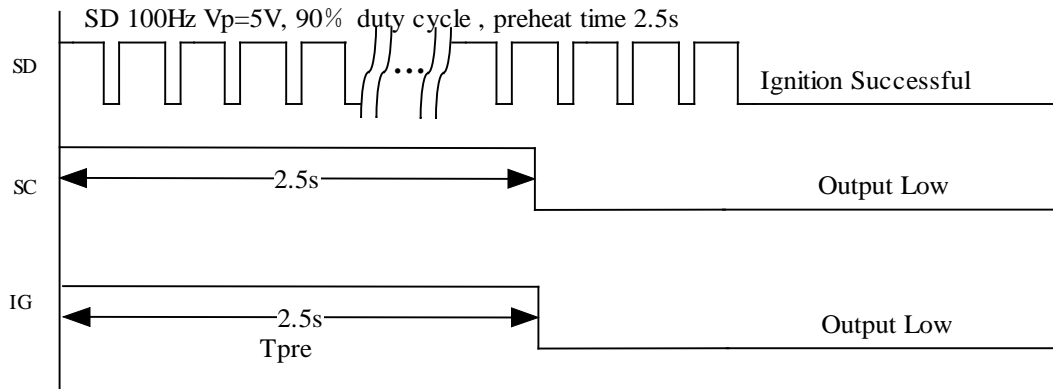


Fig. 1

Failure mode Re-ignition

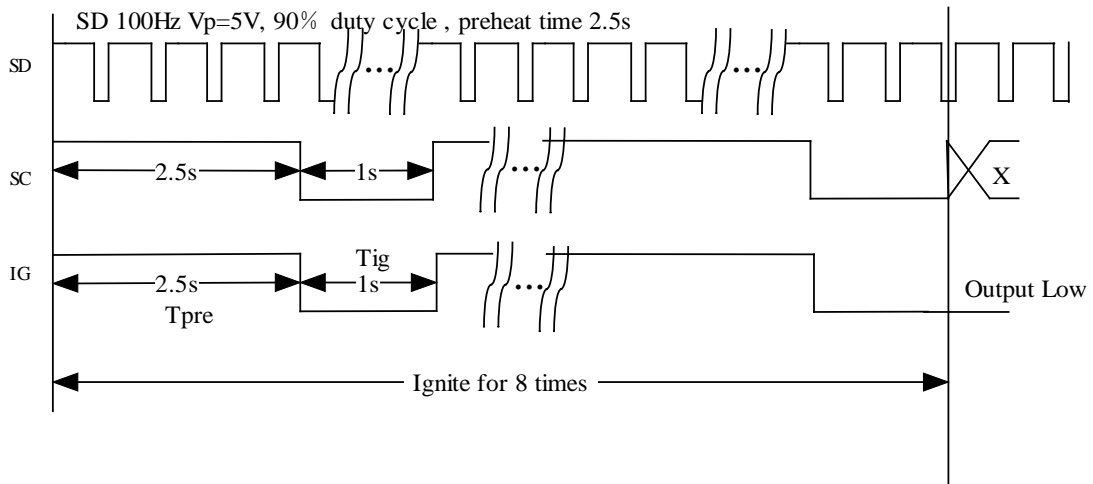


Fig. 2