

M3802 –2 : EL LAMP DRIVER CONTROLLER

Features

- Single 3V battery operation
- DC to AC conversion
- Built-in RC oscillator
- Built-in delay function
- Three independent trigger inputs
 - ALM** (active low) makes EL display for 3 seconds delay
 - TG** (active high) makes EL display for 3 seconds delay
 - FLSH** (active high) makes EL steady on

General Description

The M3802 is a poly gate CMOS integrated circuit designed to drive an Electroluminescence Lamp (EL). Three types of triggering modes are provided. A 3-second delay counter is built-in by internal divider. The switching and EL driving frequency is decided by an internal RC oscillator.

Absolute Maximum Ratings

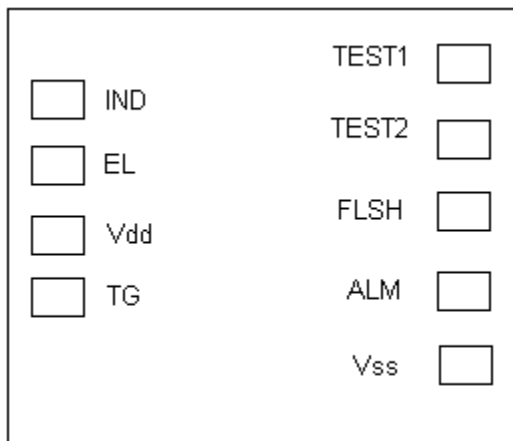
DC Supply Voltage	-0.3V to +5.0V
Input Voltage Range	Vss-0.3V to Vdd+0.3V
Operating Ambient Temperature	-10°C to 70°C
Storage Temperature	-55°C to 125°C

Electrical Characteristics

(Vss=0V, Vdd=3.0V, Ta=25°C, unless otherwise specified.)

Parameter	Symbol	Min.	Typ.	Max.	Unit
IND Output Current	I IND	1.0	1.5	2.5	mA
Osc. frequency	Fosc	400	500	670	kHz

Bonding Pads Diagram

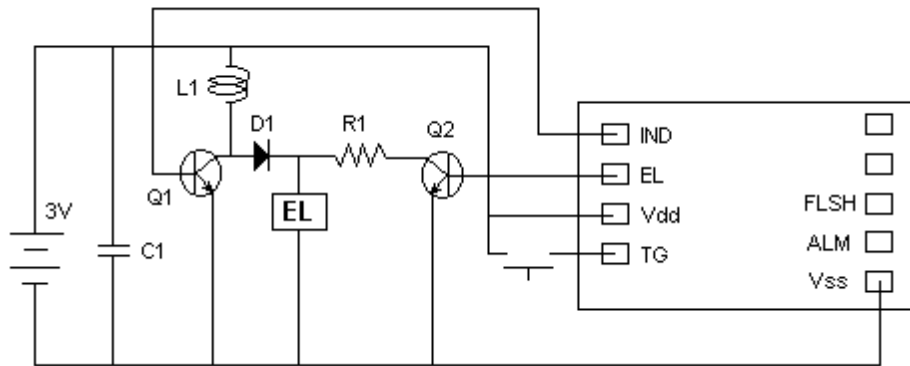


Chip size 1,300 um x 1,050 ms , substrate connected to Vdd

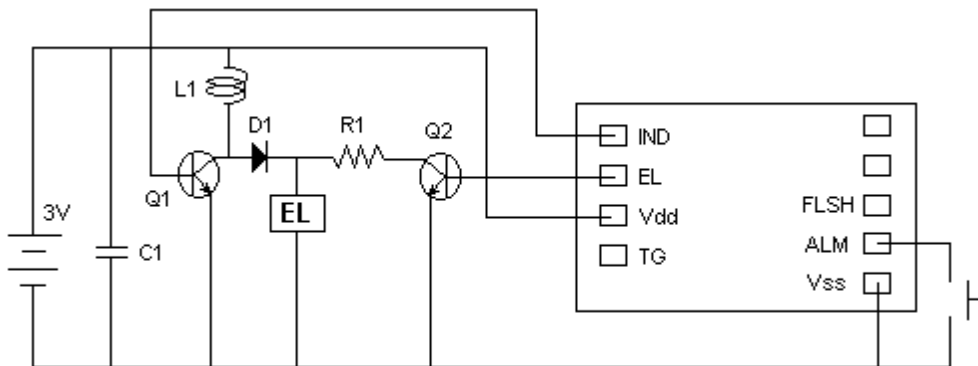
Typical Application Circuits

(Recommended values : Q1 Q2 = 2N5551 , D1 = 1N4148 , R1 = 10K Ω ,
C1 = 0.01 - 0.1 μ F , L1 = 3mH /21 Ω)

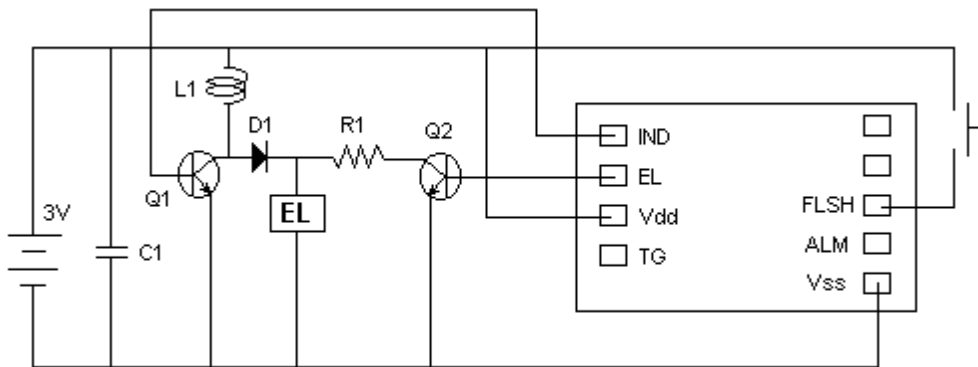
1) 3-second delay using Vdd trigger



3-second delay using Vss trigger



Without delay using FLSH trigger



2) Without delay using power control
(C1 removed, ALM connected to Vss)



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