

## FR1002 Candle Effects Integrated Circuit (IC)

The FR1002 is an advanced special effects integrated circuit (IC) designed to simulate the flickering pattern of a candle flame. This IC is specifically designed for OEM and amateur applications and is extremely easy to use. The IC requires a nominal 5V VCC voltage and its output connects directly to the gate of a logic-level N-channel MOSFET transistor which can drive both single LEDs as well as multiple LED string arrays. The FR1002 can also drive MOSFETs which control incandescent and halogen lights.

The FR1002 provides a more organic and subtle output pattern than the FR1001 and should be used when the highly realistic candle output patterns are required. The FR1002 also provides an anti-aliasing PWM output filter which provides a highly smooth output flicker.

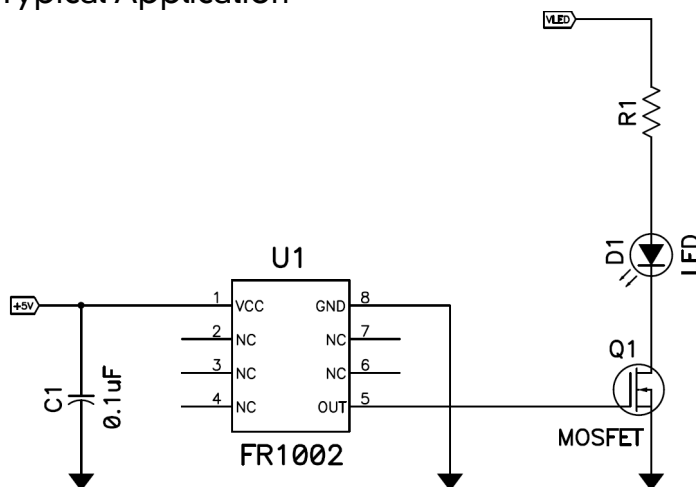
## Features

- Operates from 4.5 to 5.5VDC
- Compatible with most logic-level N-channel MOSFET transistors
- Designed for driving LEDs, incandescent, and halogen lights
- Simple operation – Requires only three (3) connections
- Available in industry standard DIP-8 and SOIC-8 packages
- True random flicker algorithms provide highly realistic candle simulations

## Pin Descriptions

Pin Number	Function
1	Vcc – Connect to 4.5 to 5.5V power source
2	No connection
3	No connection
4	No connection
5	Output – Drives logic-level N-Channel MOSFETs
6	NC
7	NC
8	Gnd – Connect to ground

## Typical Application



Note: A 0.1µF bypass ceramic capacitor is required.