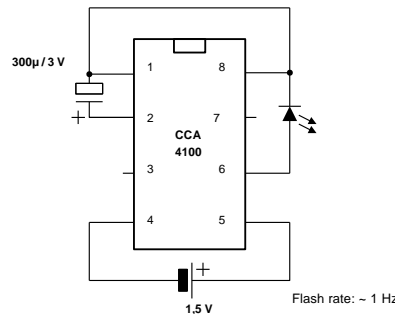


CCA4100 LED FLASHER

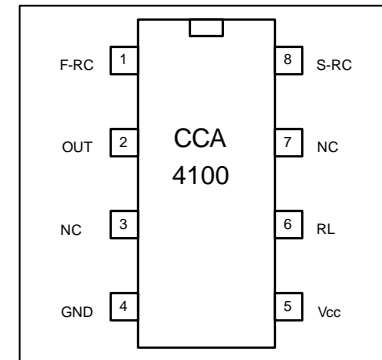
FEATURES

- LED flashlight driver IC
- Long operation time with one 1.5V battery cell
- Low number of external components (one capacitor)
- Large operating range from 1 to 5V
- Average current drain less than 500µA (over battery life cycle)
- Wide temperature range
- Low cost
- Fully function compatible to LM3909

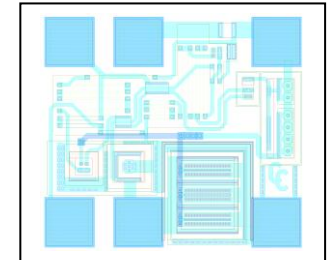
Application Circuit



Pin Configuration (SOP 8)



Chip Layout



GENERAL DESCRIPTION

The CCA4100 is an insensitive and easy to use IC to flash Light Emitting Diodes (LEDs). For operating it only needs an external capacitor and a standard 1.5V battery cell. The circuit is self starting and includes internal timing resistors and a resistor to limit LED current. The device is optimised for minimal power drain at 1.5V and 3V at nominal flashing rates. Typical Applications are toys, advertising gimmicks or novelties but also applications with necessity to locate something in the dark as fishing floats, fire alarms and fire extinguishers or emergency switches and exits. The circuit could also be used for electronic applications as triggers and saw tooth generators.

ELECTRICAL CHARACTERISTICS

Conditions: $-40\text{ }^{\circ}\text{C} < T_{OP} < 85\text{ }^{\circ}\text{C}$;

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply voltages	V_{CC}, V_{DD}		1.1		6.0	V
Flash Frequency	f	C = 300 µF (5%)	0.65	1.0	1.3	Hz
High Flash Frequency	f_h	C = 0.30 µF (5%)		1.1		kHz
Current	I	in operation mode		0.55	0.75	mA
Peak LED current	I_{LEDmax}	C = 350 µF		45		mA
Pulse Width	T_{PW}	C = 350 µF at half amplitude		6.0		ms

PIN	NAME	DESCRIPTION
1	F-RC	Fast Frequency
2	Out	Voltage Output to charge capacitor
3	NC	no connected
4	GND	ground
5	V _{CC}	supply voltage
6	RL	current limited resistor out
7	NC	no connected
8	S-RC	Slow Frequency

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