

## CCA 4100 Flasher/Oscillator

# LED FLASHER

### FEATURES

- ?? LED-Flash-Light driver IC
- ?? very long operation time with only one 1.5V battery cell
- ?? minimum external devices (capacitor)
- ?? large operating range from 1 to 5V
- ?? average current drain under 500µA (over battery live cycle)
- ?? wide temperature range
- ?? low cost
- ?? fully function compatible to LM3909

### GENERAL DESCRIPTION

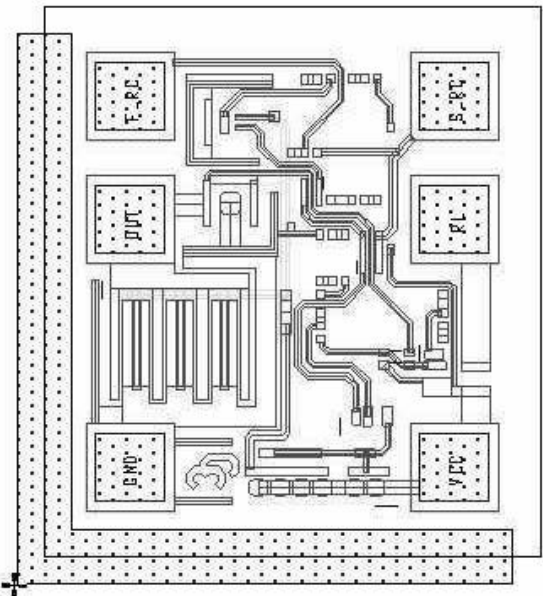
The CCA4100 is an insensitive and easy to use IC to flash Light Emitting Diodes (LEDs). For operating it only needs an external capacitor and a standard 1,5V battery cell.

The circuite 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.

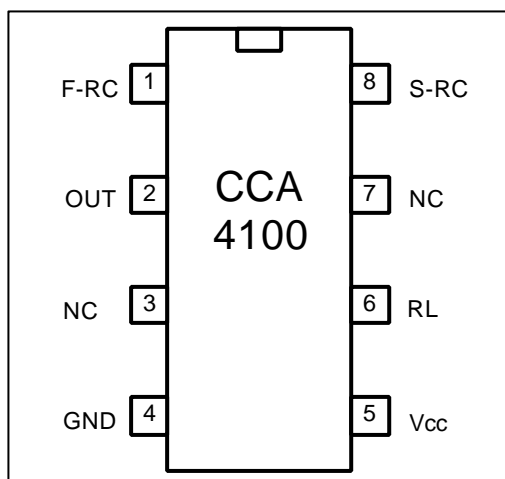
Typical Applications are toys, advertising gimmicks or novelties but also applications with necessity to locate something in the dark as fishing floats, fire alarms and fire extinguishers or emergency switches and exits.

The circuit could also be used for electronic applications as triggers and saw tooth generators.

### IC-Layout



### PIN CONFIGURATION (SOP 8)



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

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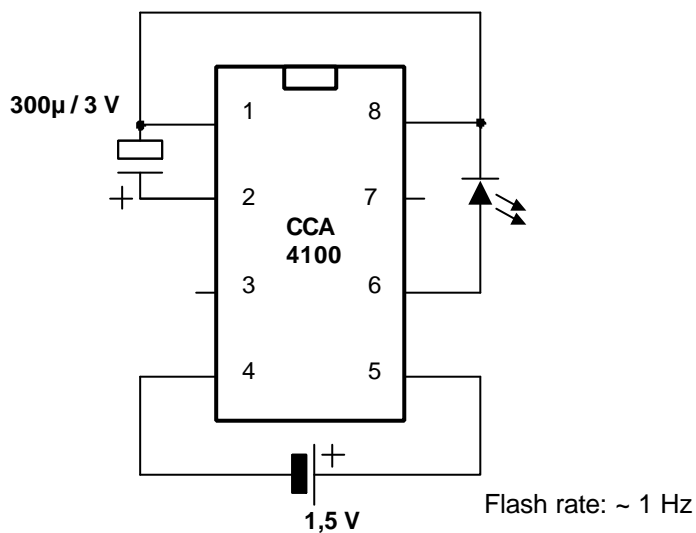
### ELECTRICAL CHARACTERISTICS

Conditions unless otherwise specified:

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply voltages	$V_{\text{CC}}, V_{\text{DD}}$		1.1		6.0	V
Flash Frequency	$f$	C 300 $\mu\text{F}$ (5%)	0,65	1,0	1,3	Hz
High Flash Frequency	$f_{\text{h}}$	C 0,30 $\mu\text{F}$ (5%)		1,1		KHz
Current	$I$	in operation mode		0,55	0,75	mA
Peak LED current	$I_{\text{LEDmax}}$	C 350 $\mu\text{F}$		45		mA
Pulse Width	$T_{\text{PW}}$	C 350 $\mu\text{F}$ at half amplitude		6,0		ms

### Application example



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## REVISION HISTORY

Revision	Date	Author	Item
1.0	03/13/01	Roland Obst	Data sheet

CREATIVE CHIPS GmbH  
Am Ockenheimer Graben 54  
D-55411 Bingen / Rhein  
Germany  
Phone: +49 (0) 6721 7999 10  
Fax: +49 (0) 6721 7999 12  
Email: [info@creativechips.com](mailto:info@creativechips.com)  
Internet: <http://www.creativechips.com>