

# UTC2303

# LINEAR INTEGRATED CIRCUIT

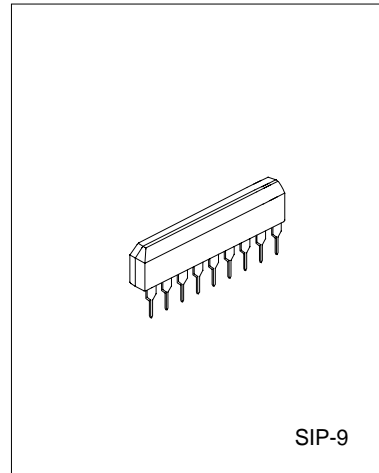
## TOY RADIO CONTROL ACTUATOR

### DESCRIPTION

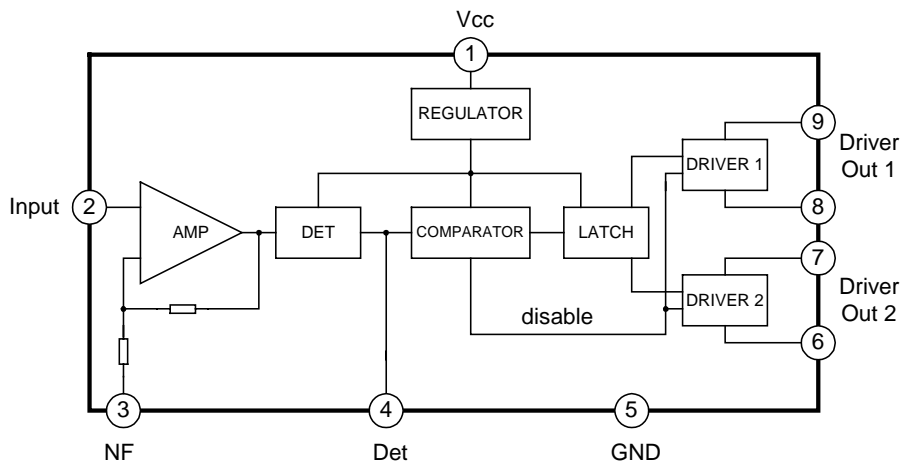
The UTC2303 is a monolithic integrated circuit having 3 function(Forward, Stop, Backward) designed for radio controlled toy car and other equipment.

### FEATURES

- \*Includes: amplifier, Detector, Comparator, Latch ,Voltage regulator, actuator.
- \*Wide Operating supply Voltage(2.5V to 10V)
- \*capable of driving small DC motors in both directions
- \*Very Low quiescent circuit current(Stop:I<sub>cc</sub>=5mA)
- \*Minimum number of external parts required



### BLOCK DIAGRAM



### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V <sub>cc</sub>	11	V
Output current(continuous)	I <sub>o(cont)</sub>	0.7V	A
Output Current(Surge)	I <sub>o(Surge)</sub>	1.2	A
Operating Temperature	T <sub>opr</sub>	-20 to +70	°C
Storage Temperature	T <sub>stg</sub>	-40 to 125	°C
Power dissipation	P <sub>d</sub>	500	W

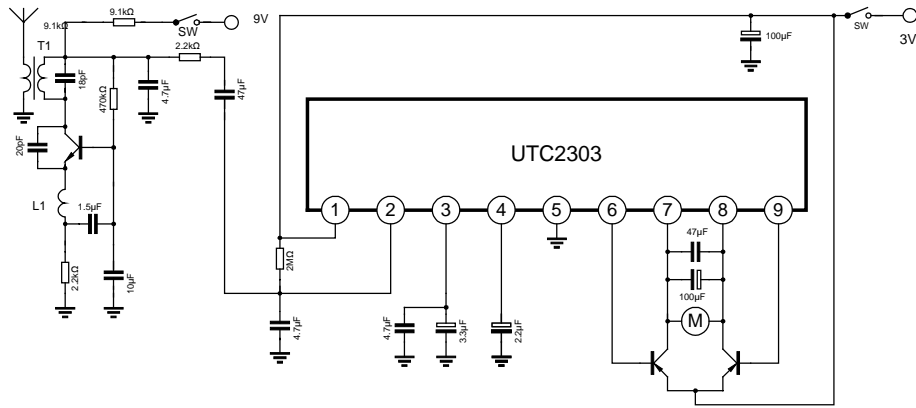
**ELECTRICAL CHARACTERISTICS**

(Ta=25°C, Vcc=5V, unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Quiescent circuit current	I <sub>CCQ1</sub>	without load		40	50	mA
	I <sub>CCQ2</sub>	Stop		5		mA
Input resistance	R <sub>i</sub>			10		kΩ
Output saturation Voltage	V <sub>sat</sub>	I <sub>o</sub> =400mA		0.25	0.45	V
Output sink current	I <sub>sink</sub>			10		mA
Sensitivity	V <sub>i(sen)</sub>	f=1kHz		3.5		mV
Comparator Hysteresis	HY			5		dB

**TYPICAL APPLICATION CIRCUIT**

**1. Low Voltage Application Circuit**



**2. High Voltage Application Circuit**

