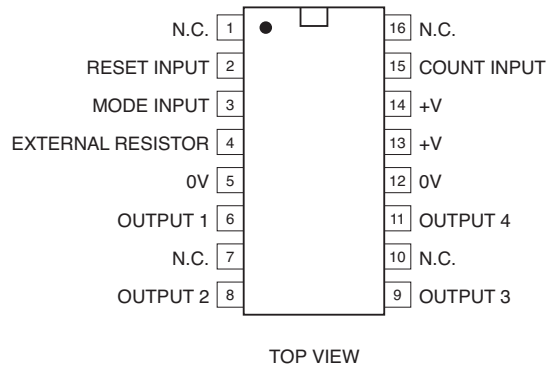
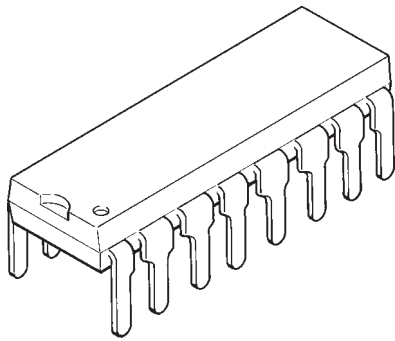


STEPPER MOTOR DRIVER SAA 1027

WHAT IT LOOKS LIKE



WHAT IT'S USED FOR

The SAA 1027 is a dedicated IC used for driving stepper motors. It produces a sequence of ON/OFF pulses from its four output pins.

Direction		FORWARD				REVERSE			
Lead colour SM42 Motor		Yel.	Or.	Blk	Br.	Yel	Or.	Blk	Br.
Output	1	ON	OFF	OFF	ON	OFF	ON	ON	OFF
Sequence	2	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	3	OFF	ON	ON	OFF	ON	OFF	OFF	ON
	4	OFF	ON	OFF	ON	OFF	ON	OFF	ON

WHAT IT'S MADE OF

This integrated circuit consists of a silicon chip in a plastic 16 pin package. The circuit contains dedicated logic and four output transistors each capable of sourcing up to 500mA.

Absolute Maximum Ratings	
Supply voltage	18V
Input voltage, all inputs	18V
Current into pin 4	120mA
Output current	500mA
Storage temp. range	-40° to +125°C
Operating temp. range	-20° to +70°C

HOW IT WORKS

The way the circuit works depends on the external components and pin connections.

Direction (pin 3)

This is connected to either the +V or 0V rail to set the direction of rotation.

Reset Input (pin 2)

This pin is normally connected to the +V rail. Connecting it momentarily to 0V resets the internal chip counter to begin at line 1 of the counting sequence shown above.

External Resistor (pin 4)

The external resistor connected here sets the base current of the output transistors.

HOW YOU USE IT

The SAA 1027 is connected to a stepper motor as shown below. The example used is TEP's SM42. The step input pin (15) is connected to an external clock such as a 555 timer connected in its astable mode. It is convenient to run the 555 clock and SAA 1027 from the same power supply.

