

FUJITSU FUJITSU MICROELECTRONICS, INC.

MB8541P

Product Profile

CMOS 256-bit Sequential Programmable Read Only Memory

GENERAL DESCRIPTION

The Fujitsu MB8541P is a CMOS 256 x 1 bit programmable sequential-access read only memory with an on-chip address counter, which is automatically incremented by CLK input and can be reset by RST input.

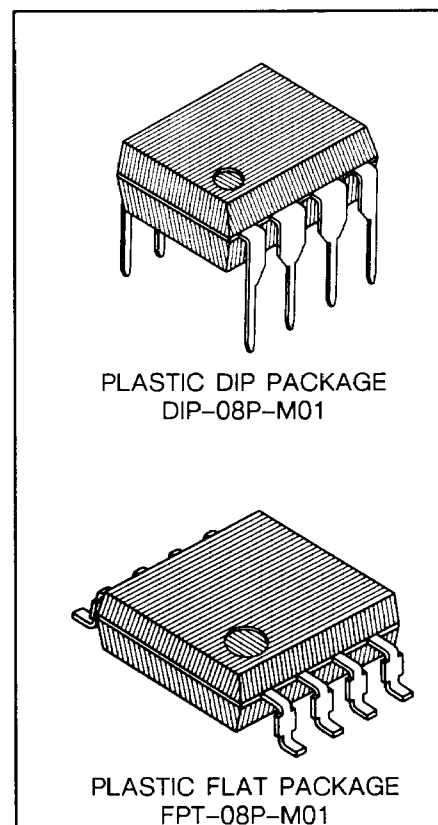
The MB8541P is electrically programmed by the user themselves. All memory bits are in the "H" state before being programmed into the selected memory cells through a simple programming procedure.

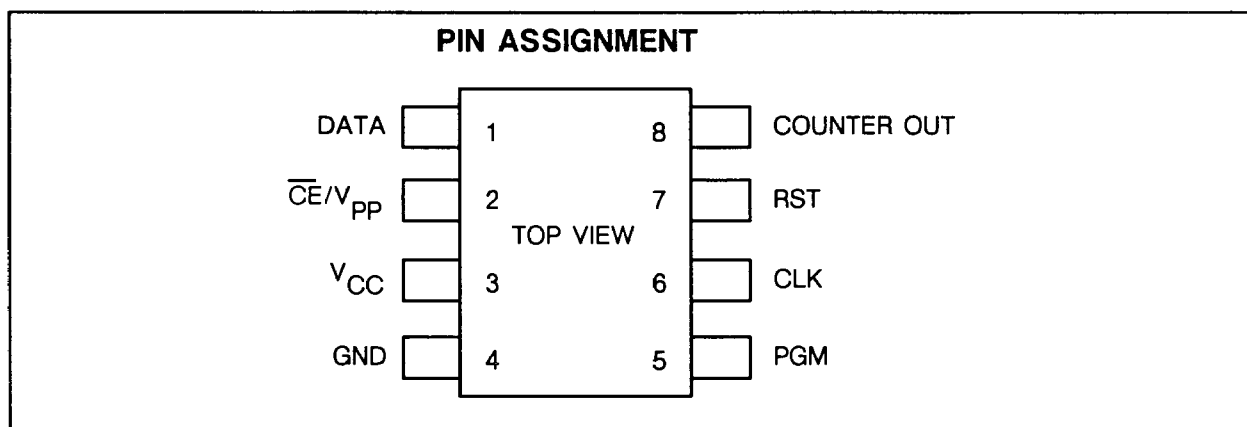
Each memory cell is constructed with a stacked gate single-MOS transistor. The peripheral circuits are fabricated using CMOS technology to achieve the low power dissipation.

The MB8541P is useful for such applications as citizens band radio, radio-telephone, cordless-telephone, or signal generator of various terminal machines. The guaranteed temperature range and power supply tolerance are very wide.

- 256 words x 1 bit organization
- Built-in address counter with reset
- Serial output by clock input
- Programmable with a 9ms pulse
- 3-state output
- Low power consumption
 - Active: 50mW max @ 5V
 - Standby: 100μW max @ 5V
- Wide supply voltage
 - +3V to +8V
- Wide operation temperature range
 - 40°C to +85°C
- Standard 8-pin DIP package (Suffix: -P)
- Standard 8-pin flat package (Suffix: -PF)

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**FUNCTION TRUTH TABLE**

Pin Name Mode	CLK	RST	DATA	COUNTER OUT	\overline{CE}/V_{PP}	PGM	V_{CC}	GND
Standby	X*1	X*1	High-Z	High-Z	V_{IH}	X*1	V_{CC}	GND
Counter Reset	X	↑	X	VOL	*2	X	V_{CC}	GND
Counter Increment	↓	V_{IL}	X	A7 OUTPUT*3	*2	X	V_{CC}	GND
Read	X	X	D_{OUT}	A7 OUTPUT	V_{IL}	X	V_{CC}	GND
Program	V_{IL}	V_{IL}	D_{IN}	High-Z	V_{PP}	V_{IH}	V_{CC}	GND
Verify	X	X	D_{OUT}	A7 OUTPUT	V_{IL}	X	V_{CC}	GND
Program Inhibit	X	X	High-Z	High-Z	V_{PP}	V_{IL}	V_{CC}	GND
Service Cell Select	X	X	—	—	X	18V	V_{CC}	GND

- Notes:**
- ↑ : Positive edge trigger
 - ↓ : Negative edge trigger
 - X : Either V_{IL} or V_{IH}
 - *1 : Either V_{CC} or Open to reduce ISB
 - *2 : Either V_{IL} or V_{PP}
 - *3 : The COUNTER OUT to be kept High-Z at $\overline{CE}/V_{PP}=V_{PP}$