

**MOTOROLA**

# SEMICONDUCTORS

3501 ED BLUESTEIN BLVD., AUSTIN, TEXAS 78721

## Advance Information

### 8-BIT MICROPROCESSOR

The MC6803E is an 8-bit microprocessing unit (MPU) designed for uses in which the internal clock needs to be synchronized with systems, peripherals, or other MPUs. The MC6803E also supports DMA and dynamic RAM refresh with its halt (HALT) and bus available (BA) pins. The MC6803E has all the features of the MC6801 microcomputer unit except on-chip ROM and an on-chip oscillator. These on-chip features include 128 bytes of RAM, a serial communications interface (SCI), parallel I/O, and a three-function programmable timer. The MC6803E has the same enhanced MC6800 features as the MC6801, which include 64K address space, two 8-bit accumulators (which can be concatenated into one 16-bit accumulator), and the enhanced instruction set, as well as extra internal interrupts.

- Enhanced MC6800 Instruction Set
- Upward Source and Object Code Compatible with the MC6800
- Bus Compatible with the M6800 Family
- Direct Source and Object Code Compatible with the MC6801
- 8 × 8 Multiply Instruction
- 64K Memory Map (Unused High Order Address Lines Can Be Used as Input Lines)
- External Clock Inputs (E and AS) Allow Synchronization
- DMA Capability (Clock Stretching) with HALT and BA Pins
- Serial Communications Interface (SCI)
- 16-Bit, Three-Function Programmable Timer
- 128 Bytes of RAM
- 64 Bytes of RAM Retainable During Power Down
- Pin-for-Pin Compatible with MC6801 Except for HALT and BA Pins

#### ORDERING INFORMATION (T<sub>A</sub> = 0°C to 70°C)

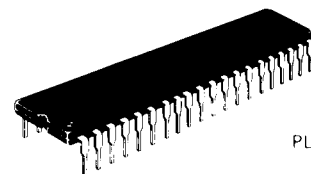
Package Type	Frequency	Order Number
Plastic G Suffix	1.0 MHz	MC6803EG
	1.25 MHz	MC6803EG-1
Ceramic L Suffix	1.0 MHz	MC6803EL
	1.25 MHz	MC6803EL-1

## MC6803E

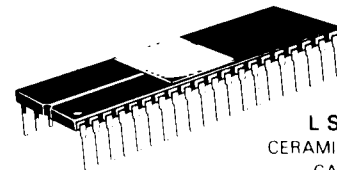
### HMOS

(HIGH-DENSITY N-CHANNEL, SILICON-GATE)

### 8-BIT MICROPROCESSOR



**G SUFFIX**  
PLASTIC PACKAGE  
CASE 711



**L SUFFIX**  
CERAMIC PACKAGE  
CASE 715

#### PIN ASSIGNMENT

