



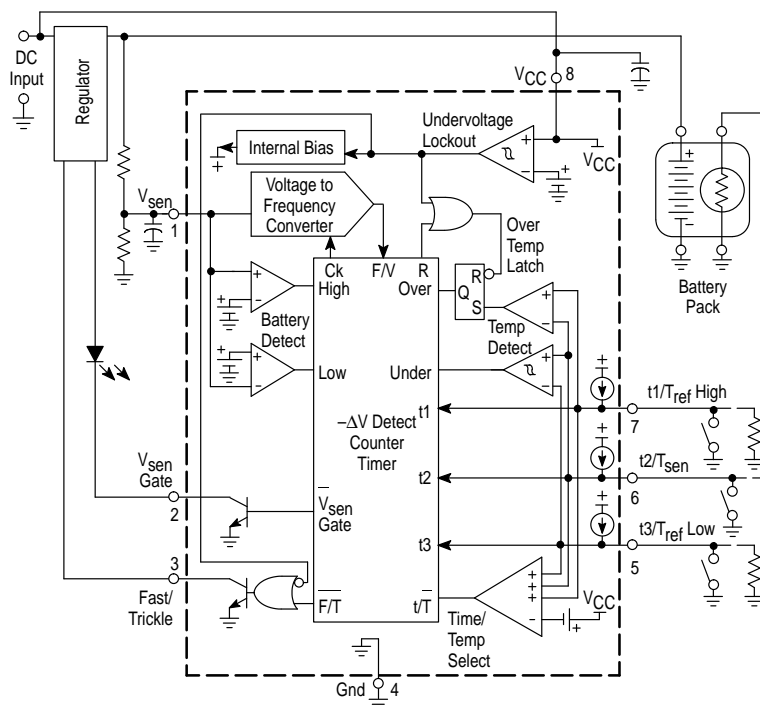
# Product Preview

## Battery Fast Charge Controller

The MC33340 is a monolithic control IC that is specifically designed as a fast charge controller for Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries. This device features negative slope voltage detection as the primary means for fast charge termination. Accurate detection is ensured by an output that momentarily interrupts the charge current for precise voltage sampling. An additional secondary backup termination method can be selected that consists of either a programmable time or temperature limit. Protective features include battery over- and undervoltage detection, latched over temperature detection, and power supply input undervoltage lockout with hysteresis. Provisions for entering a rapid test mode are available for enhanced end product testing. This device is available in an economical 8 lead surface mount package.

- Negative Slope Voltage Detection
- Accurate Zero Current Battery Voltage Sensing
- Programmable 1 to 4 Hour Fast Charge Time Limit
- Programmable Over/Under Temperature Detection
- Battery Over- and Undervoltage Fast Charge Protection
- Rapid System Test Mode
- Power Supply Input Undervoltage Lockout with Hysteresis
- Operating Voltage Range of 3.0 V to 18 V

### Simplified Block Diagram

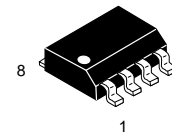


This device contains 2,512 active transistors.

## MC33340

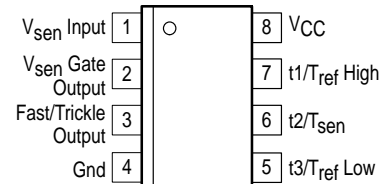
### BATTERY FAST CHARGE CONTROLLER

#### SEMICONDUCTOR TECHNICAL DATA



**D SUFFIX**  
PLASTIC PACKAGE  
CASE 751  
(SO-8)

### PIN CONNECTIONS



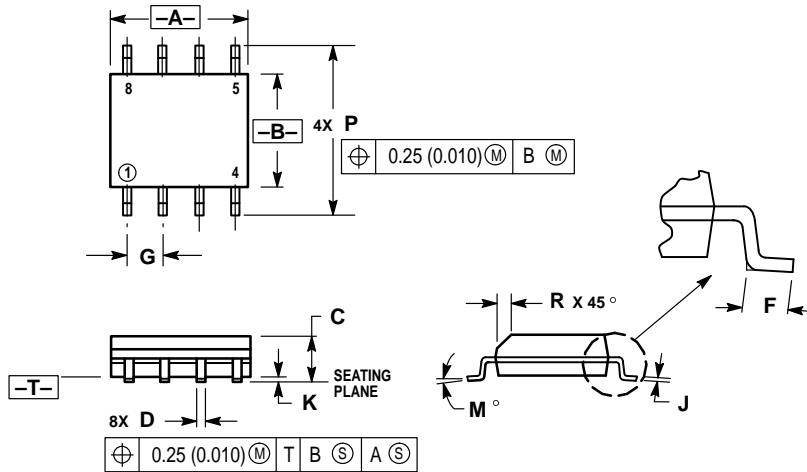
(Top View)

### ORDERING INFORMATION

| Device   | Operating Temperature Range                       | Package |
|----------|---|---------|
| MC33340D | $T_J = -25^\circ \text{ to } +125^\circ \text{C}$ | SO-8    |

## OUTLINE DIMENSIONS


**D SUFFIX**  
**PLASTIC PACKAGE**  
CASE 75-05  
(SO-8)  
ISSUE N



## NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 (0.006) PER SIDE.
5. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 (0.005) TOTAL IN EXCESS OF THE D DIMENSION AT MAXIMUM MATERIAL CONDITION.

| DIM | MILLIMETERS |      | INCHES    |       |
|-----|-------------|------|-----------|-------|
|     | MIN         | MAX  | MIN       | MAX   |
| A   | 4.80        | 5.00 | 0.189     | 0.196 |
| B   | 3.80        | 4.00 | 0.150     | 0.157 |
| C   | 1.35        | 1.75 | 0.054     | 0.068 |
| D   | 0.35        | 0.49 | 0.014     | 0.019 |
| F   | 0.40        | 1.25 | 0.016     | 0.049 |
| G   | 1.27 BSC    |      | 0.050 BSC |       |
| J   | 0.18        | 0.25 | 0.007     | 0.009 |
| K   | 0.10        | 0.25 | 0.004     | 0.009 |
| M   | 0°          | 7°   | 0°        | 7°    |
| P   | 5.80        | 6.20 | 0.229     | 0.244 |
| R   | 0.25        | 0.50 | 0.010     | 0.019 |

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