

Power Supervisory Circuits (continued)

Undervoltage Sensing Circuit

MC34064P-5, D-5 — $T_A = 0^\circ$ to $+70^\circ\text{C}$, Case 29, 751

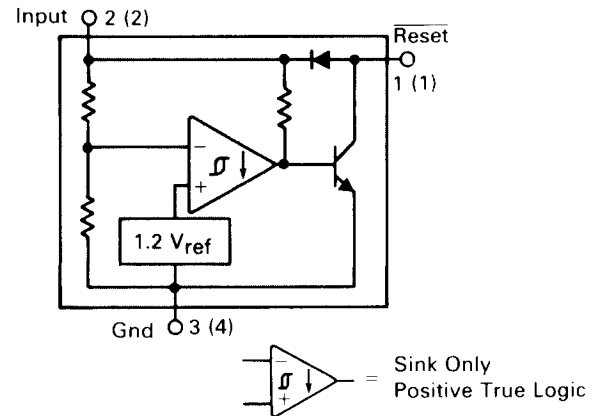
MC33064P-5, D-5 — $T_A = -40^\circ$ to $+85^\circ\text{C}$, Case 29, 751

MC34164P-5, D-5 — $T_A = 0^\circ$ to $+70^\circ\text{C}$, Case 29, 751

MC33164P-5, D-5 — $T_A = -40^\circ$ to $+85^\circ\text{C}$, Case 29, 751

The MC34064/MC34164 is a family of undervoltage sensing circuits specifically designed for use as reset controllers in microprocessor-based systems. They offer the designer an economical solution for low voltage detection with a single external resistor. Both parts feature a trimmed bandgap reference, and a comparator with precise thresholds and built-in hysteresis to prevent erratic reset operation. The MC34064 has a threshold voltage of 4.6 V, while the MC34164 threshold is at 4.3 V, and features a larger hysteresis window. The open collector reset outputs are capable of sinking in excess of 10 mA (MC34064) and 7.0 mA (MC34164). Operation is guaranteed down to 1.0 volt input with low standby current. The MC34164 is specifically designed for battery powered applications where low bias current (one/tenth of the MC34064's) is an important characteristic.

Applications include direct monitoring of the 5.0 volt MPU/logic power supply used in appliance, automotive, consumer, and industrial equipment.



Pin numbers adjacent to terminals are for the 3 pin TO-92 package.
Pin numbers in parenthesis are for the D suffix SO-8 package.

Microprocessor Voltage Regulator and Supervisory Circuit

MC34160P — $T_A = 0^\circ$ to $+70^\circ\text{C}$, Case 648C

MC33160P — $T_A = -40^\circ$ to $+85^\circ\text{C}$, Case 648C

The MC34160 Series is a voltage regulator and supervisory circuit containing many of the necessary monitoring functions required in microprocessor based systems. It is specifically designed for appliance and industrial applications offering the designer a cost effective solution with minimal external components. These integrated circuits feature a 5.0 V, 100 mA regulator with short circuit current limiting, pinned out 2.6 V bandgap reference, low voltage reset comparator, power warning comparator with programmable hysteresis, and an uncommitted comparator ideally suited for microprocessor line synchronization.

Additional features include a chip disable input for low standby current, and internal thermal shutdown for over temperature protection.

These devices are contained in a 16 pin dual-in-line heat tab plastic package for improved thermal conduction.

