

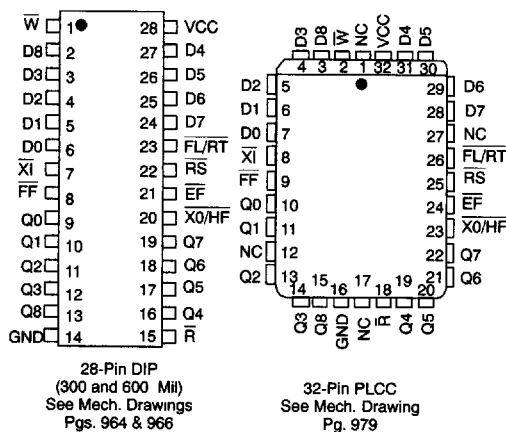
### FEATURES

- First-in, first-out memory-based architecture
- Flexible 2048 x 9 organization
- Low-power HCMOS technology
- Asynchronous and simultaneous read/write
- Bidirectional applications
- Fully expandable by word width or depth
- Empty and full warning flags
- Half-full flag capability in single-device mode
- Retransmit capability
- High performance
- Available in 50 ns, 65 ns, 80 ns, and 120 ns access times
- Optional industrial temperature range -40°C to +85°C available, designated N

### DESCRIPTION

The DS2011 FIFO Chip implements a first-in, first-out algorithm featuring asynchronous read/write operations, full, empty, and half-full flags, and unlimited expansion capability in both word size and depth. The DS2011 is functionally and electrically equivalent to the

### PIN ASSIGNMENT



### PIN DESCRIPTION

|                    |                           |
|--------------------|---------------------------|
| $\overline{W}$     | – WRITE                   |
| $\overline{R}$     | – READ                    |
| $\overline{RS}$    | – RESET                   |
| $\overline{FL/RT}$ | – First Load/Retransmit   |
| $D_{0-8}$          | – Data In                 |
| $Q_{0-8}$          | – Data Out                |
| $\overline{XI}$    | – Expansion In            |
| $\overline{XO/HF}$ | – Expansion Out/Half Full |
| $\overline{FF}$    | – Full Flag               |
| $\overline{EF}$    | – Empty Flag              |
| $V_{CC}$           | – 5 Volts                 |
| $GND$              | – Ground                  |
| $NC$               | – No Connect              |

DS2009 512 x 9 FIFO Chip, with the exceptions listed in the notes for DC Electrical Characteristics of the DS2009 data sheet. Refer to the DS2009 data sheet for detailed device description.