



Figure 1-2. MC68HC05JB3 Pin Assignments

## 1.4 FUNCTIONAL PIN DESCRIPTION

The following paragraphs give a description of the general function of each pin assigned in **Figure 1-2**.

### 1.4.1 V<sub>DD</sub> and V<sub>SS</sub>

Power is supplied to the MCU through V<sub>DD</sub> and V<sub>SS</sub>. V<sub>DD</sub> is the positive supply, and V<sub>SS</sub> is ground. The MCU operates from a single power supply.

Very fast signal transitions occur on the MCU pins. The short rise and fall times place very high short-duration current demands on the power supply. To prevent noise problems, special care should be taken to provide good power supply bypassing at the MCU by using bypass capacitors with good high-frequency characteristics that are positioned as close to the MCU as possible. Bypassing requirements vary, depending on how heavily the MCU pins are loaded.

### 1.4.2 OSC1, OSC2

The OSC1 and OSC2 pins are the connections for the on-chip oscillator. The OSC1 and OSC2 pins can accept the following sets of components:

1. A crystal as shown in **Figure 1-3(a)**
2. A ceramic resonator as shown in **Figure 1-3(a)**
3. An external clock signal as shown in **Figure 1-3(b)**