# Fairchild Semiconductors

## Semiconductors

Linear I.C.'s - Voltage Comparators

# μΑ710 High Speed Differential Comparator

#### GENERAL DESCRIPTION

The  $\mu$ A710 is a differential voltage comparator intended for applications requiring high accuracy and fast response times. It is constructed on a single silicon chip using the Fairchild Planar\* epitaxial process. The device is useful as a variable threshold Schmitt trigger, a pulse height discriminator, a voltage comparator in high-speed A/D converters, a memory sense amplifier or a high noise immunity line receiver. The output of the comparator is compatible with all integrated logic forms.

#### **FEATURES**

5mV maximum offset voltage. 5µA maximum offset current. 1000 minimum voltage gain. 20µV/°C maximum offset voltage drift.

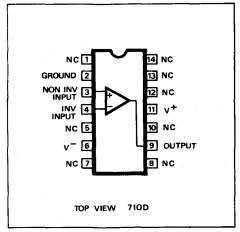
## **ABSOLUTE MAXIMUM RATINGS**

| Positive supply voltage                                       | +14.0V                          |
|---|---------------------------------|
| Negative supply voitage                                       | -7.0V                           |
| Peak output current   | 10mA                            |
| Differential input voltage                                    | ±5.0V                           |
| Input voltage   | ±7.0V                           |
| Internal power dissipation<br>Metal can<br>DIP                | 500mW<br>670mW                  |
| Storage temperature range<br>Metal can, DIP                   | -65°C to +150°C                 |
| Operating temperature range Military (710M) Commercial (710C) | -55°C to +125°C<br>0°C to +70°C |
| Lead temperature<br>Metal can, DIP<br>(soldering, 60 seconds) | 300°C                           |

#### REFERENCE TABLE

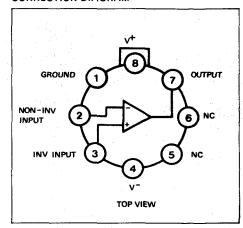
| Code      | Stock No. |
|-----------|-----------|
| <br>710DC | 35852X    |
| 710DM     | 35853R    |
| 710HC     | 35854G "  |
| 710HM     | 35855E    |

#### CONNECTION DIAGRAM



See outline drawing No. 131 for dimensions.

### **CONNECTION DIAGRAM**



See outline drawing No. 97 for dimensions.