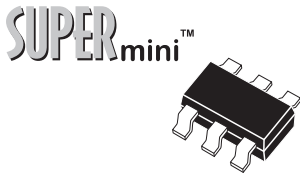


**CIMD6A****DUAL COMPLEMENTARY  
DIGITAL TRANSISTOR  
50V, 100mA****SOT-26 CASE**

# Central™

**Semiconductor Corp.**
**DESCRIPTION:**

The Central Semiconductor CIMD6A is a Dual Complementary Digital Transistor in a SOT-26 surface mount package, designed for switching applications, interface circuit and driver circuit applications. **Marking code is CD6.**

**MAXIMUM RATINGS PER TRANSISTOR** ( $T_A=25^\circ\text{C}$ )

|                           | <b>SYMBOL</b>  |             | <b>UNITS</b>       |
|---------------------------|----------------|-------------|--------------------|
| Collector-Emitter Voltage | $V_{CEO}$      | 50          | V                  |
| Collector-Base Voltage    | $V_{CBO}$      | 50          | V                  |
| Emitter-Base Voltage      | $V_{EBO}$      | 5.0         | V                  |
| Collector Current         | $I_C$          | 100         | mA                 |
| Power Dissipation         | $P_D$          | 350         | mW                 |
| Operating and Storage     |                |             |                    |
| Junction Temperature      | $T_J, T_{stg}$ | -55 to +150 | $^\circ\text{C}$   |
| Thermal Resistance        | $\Theta_{JA}$  | 357         | $^\circ\text{C/W}$ |

**ELECTRICAL CHARACTERISTICS PER TRANSISTOR** ( $T_A=25^\circ\text{C}$ )

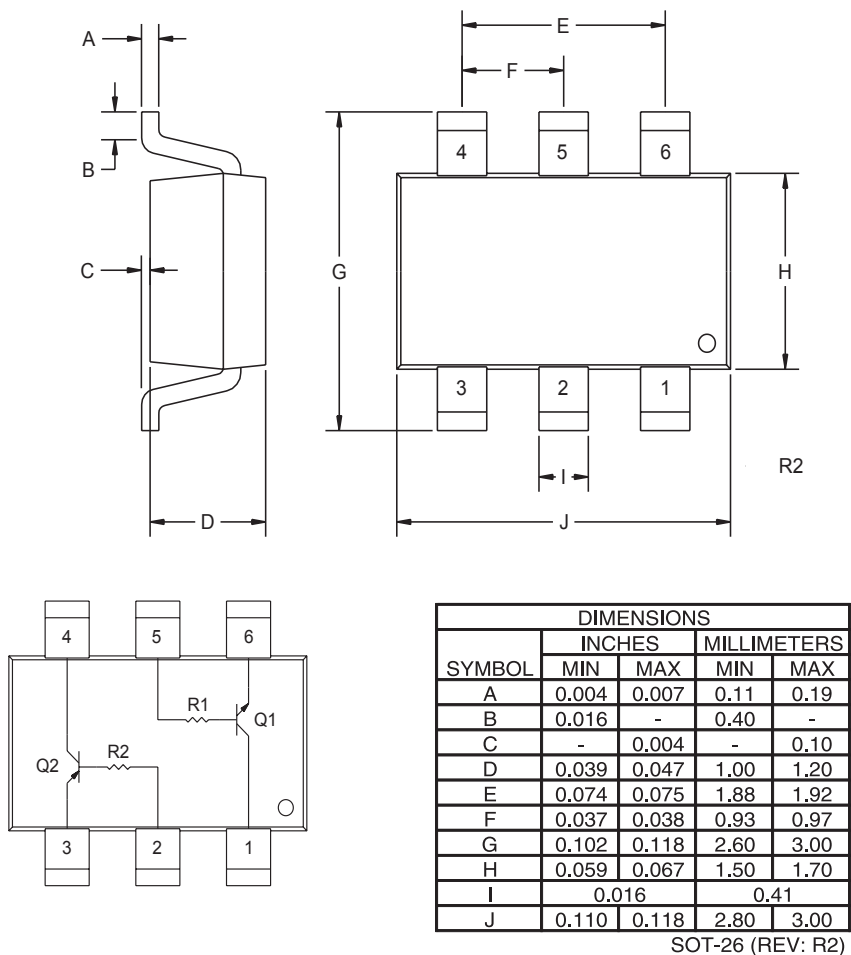
| <b>SYMBOL</b> | <b>TEST CONDITIONS</b>                                 | <b>MIN</b> | <b>TYP</b> | <b>MAX</b> | <b>UNITS</b>     |
|---------------|--------------------------------------------------------|------------|------------|------------|------------------|
| $I_{CBO}$     | $V_{CB}=50\text{V}$                                    |            |            | 500        | nA               |
| $I_{EBO}$     | $V_{EB}=4.0\text{V}$                                   |            |            | 500        | nA               |
| $BV_{CBO}$    | $I_C=50\mu\text{A}$                                    | 50         |            |            | V                |
| $BV_{CEO}$    | $I_C=1.0\text{mA}$                                     | 50         |            |            | V                |
| $BV_{EBO}$    | $I_E=50\mu\text{A}$                                    | 5.0        |            |            | V                |
| $V_{CE(SAT)}$ | $I_C=5.0\text{mA}, I_B=250\mu\text{A}$                 |            |            | 0.3        | V                |
| $h_{FE}$      | $V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$                 | 100        |            | 600        |                  |
| * $f_T$       | $V_{CE}=10\text{V}, I_C=5.0\text{mA}, f=100\text{MHz}$ |            | 250        |            | MHz              |
| $R_1=R_2$     | -                                                      | 3.3        | 4.7        | 6.1        | $\text{K}\Omega$ |

\* Characteristic of transistor only

R0 (20-February 2002)

**DUAL COMPLEMENTARY  
DIGITAL TRANSISTOR  
50V, 100mA**

**SOT-26 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Collector Q1
- 2) Base Q2
- 3) Emitter Q2
- 4) Collector Q2
- 5) Base Q1
- 6) Emitter Q1