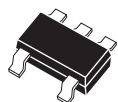


**CFMS4**  
**SURFACE MOUNT**  
**DUAL, COMMON BASE,**  
**SILICON PNP TRANSISTORS**



**SOT-25 CASE**

**Central<sup>TM</sup>**  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CFMS4 consists of two silicon PNP transistors in a common base configuration, manufactured by the epitaxial planar process and epoxy molded in a space saving SOT-25 surface mount package. This device has been designed for small signal applications where a high breakdown voltage is required.

**MARKING CODE: CFMS4**

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

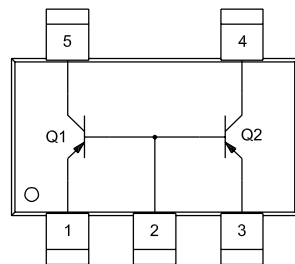
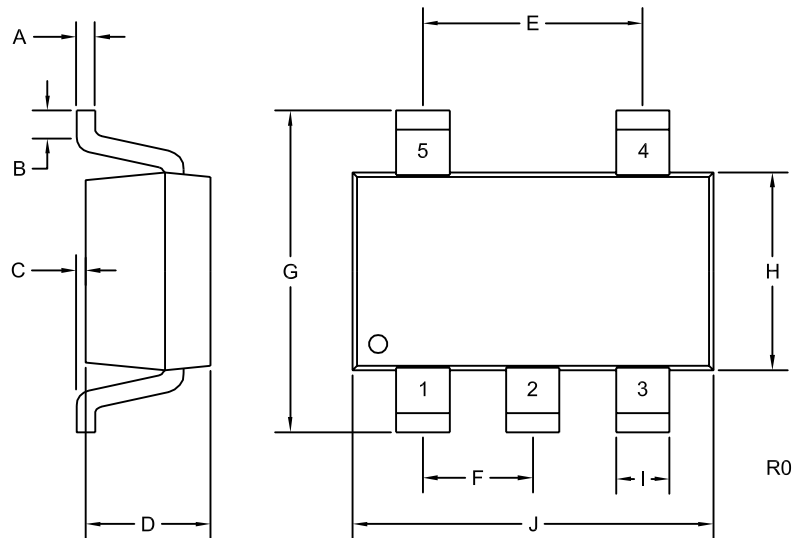
|   | SYMBOL         |             | UNITS              |
|---|----------------|-------------|--------------------|
| Collector-Base Voltage                        | $V_{CBO}$      | 120         | V                  |
| Collector-Emitter Voltage                     | $V_{CEO}$      | 120         | V                  |
| Emitter-Base Voltage                          | $V_{EBO}$      | 5.0         | V                  |
| Continuous Collector Current                  | $I_C$          | 50          | mA                 |
| Power Dissipation                             | $P_D$          | 350         | mW                 |
| Operating and Storage<br>Junction Temperature | $T_J, T_{stg}$ | -65 to +150 | $^{\circ}\text{C}$ |

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

| SYMBOL        | TEST CONDITIONS  | MIN | TYP | MAX | UNITS |
|---------------|--|-----|-----|-----|-------|
| $I_{CBO}$     | $V_{CB}=100\text{V}$                                   |     |     | 500 | nA    |
| $I_{EBO}$     | $V_{EB}=4.0\text{V}$                                   |     |     | 500 | nA    |
| $BV_{CBO}$    | $I_C=50\mu\text{A}$                                    | 120 |     |     | V     |
| $BV_{CEO}$    | $I_C=1.0\text{mA}$                                     | 120 |     |     | V     |
| $BV_{EBO}$    | $I_E=50\mu\text{A}$                                    | 5.0 |     |     | V     |
| $V_{CE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$                    |     |     | 500 | mV    |
| $h_{FE}$      | $V_{CE}=6.0\text{V}, I_C=2.0\text{mA}$                 | 180 |     | 820 |       |
| $f_T$         | $V_{CE}=12\text{V}, I_E=2.0\text{mA}, f=100\text{MHz}$ |     | 140 |     | MHz   |

R0 (20-July 2004)

**SOT-25 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.004  | 0.007 | 0.11        | 0.19 |
| B          | 0.016  | -     | 0.40        | -    |
| C          | -      | 0.004 | -           | 0.10 |
| D          | 0.039  | 0.047 | 1.00        | 1.20 |
| E          | 0.074  | 0.075 | 1.88        | 1.92 |
| F          | 0.037  | 0.038 | 0.93        | 0.97 |
| G          | 0.102  | 0.118 | 2.60        | 3.00 |
| H          | 0.059  | 0.067 | 1.50        | 1.70 |
| I          | 0.016  |       | 0.41        |      |
| J          | 0.110  | 0.118 | 2.80        | 3.00 |

SOT-25 (REV: R0)

**MARKING CODE: CFMS4**

R0 (20-July 2004)