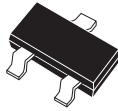


**CMPD2003  
CMPD2004  
CMPD2004S**

**HIGH VOLTAGE  
SWITCHING DIODE**



**SOT-23 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD2003, CMPD2004, CMPD2004S types are silicon switching diodes manufactured by the epitaxial planar process, designed for applications requiring high voltage capability.

The following configurations are available:

|           |                 |
|-----------|-----------------|
| CMPD2003  | SINGLE          |
| CMPD2004  | SINGLE          |
| CMPD2004S | DUAL, IN SERIES |

**MARKING CODE: A82**  
**MARKING CODE: D53**  
**MARKING CODE: DB6**

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

|  | SYMBOL         | CMPD2004    |           | UNITS                |
|--|----------------|-------------|-----------|----------------------|
|  |                | CMPD2003    | CMPD2004S |                      |
| Continuous Reverse Voltage                 | $V_R$          | 200         | 240       | V                    |
| Peak Repetitive Reverse Voltage            | $V_{RRM}$      | 250         | 300       | V                    |
| Peak Repetitive Reverse Current            | $I_O$          | 200         | 200       | mA                   |
| Continuous Forward Current                 | $I_F$          | 250         | 225       | mA                   |
| Peak Repetitive Forward Current            | $I_{FRM}$      | 625         | 625       | mA                   |
| Forward Surge Current, $t_p=1 \mu\text{s}$ | $I_{FSM}$      | 4000        | 4000      | mA                   |
| Forward Surge Current, $t_p=1 \text{ s}$   | $I_{FSM}$      | 1000        | 1000      | mA                   |
| Power Dissipation                          | $P_D$          | 350         |           | mW                   |
| Operating and Storage                      |                |             |           |                      |
| Junction Temperature                       | $T_J, T_{stg}$ | -65 to +150 |           | $^{\circ}\text{C}$   |
| Thermal Resistance                         | $\Theta_{JA}$  | 357         |           | $^{\circ}\text{C/W}$ |

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

| SYMBOL   | TEST CONDITIONS                            | CMPD2003 |     | CMPD2004 |     | UNIT          |
|----------|--|----------|-----|----------|-----|---------------|
|          |  | MIN      | MAX | MIN      | MAX |               |
| $B_{VR}$ | $I_R=100 \mu\text{A}$                      | 250      |     | 300      |     | V             |
| $I_R$    | $V_R=200\text{V}$                          |          | 100 | -        |     | nA            |
| $I_R$    | $V_R=200\text{V}, T_A=150^{\circ}\text{C}$ |          | 100 | -        |     | $\mu\text{A}$ |
| $I_R$    | $V_R=240\text{V}$                          |          | -   | 100      |     | nA            |
| $I_R$    | $V_R=240\text{V}, T_A=150^{\circ}\text{C}$ |          | -   | 100      |     | $\mu\text{A}$ |
| $V_F$    | $I_F=100\text{mA}$                         |          | 1.0 | 1.0      |     | V             |

| SYMBOL   | TEST CONDITIONS   | CMPD2003 |      | CMPD2004<br>CMPD2004S |     | UNIT |
|----------|---|----------|------|-----------------------|-----|------|
|          |   | MIN      | MAX  | MIN                   | MAX |      |
| $V_F$    | $I_F=200\text{mA}$  |          | 1.25 |                       | -   | V    |
| $C_T$    | $V_R=0, f=1\text{ MHz}$   |          | 5.0  |                       | 5.0 | pF   |
| $t_{rr}$ | $I_F=I_R=30\text{mA}, \text{RECOV. TO } 3.0\text{mA},$<br>$R_L=100\Omega$ |          | 50   |                       | 50  | ns   |

All dimensions in inches (mm).

