

**CMPZDA3V6 THRU CMPZDA33V**

**DUAL ZENER DIODE  
3.6 VOLTS THRU 33 VOLTS  
350mW, 5% TOLERANCE**

**SOT-23 CASE**

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPZDA3V6 Series Silicon Dual Zener Diode is a high quality voltage regulator, connected in a common anode configuration, for use in industrial, commercial, entertainment and computer applications.

**ABSOLUTE MAXIMUM RATINGS**

Power Dissipation (@ $T_A=25^{\circ}\text{C}$ )  
Operating and Storage Temperature  
Thermal Resistance

**SYMBOL**

$P_D$   
 $T_J, T_{stg}$   
 $\Theta_{JA}$

350  
-65 to +150  
357

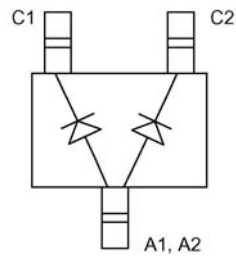
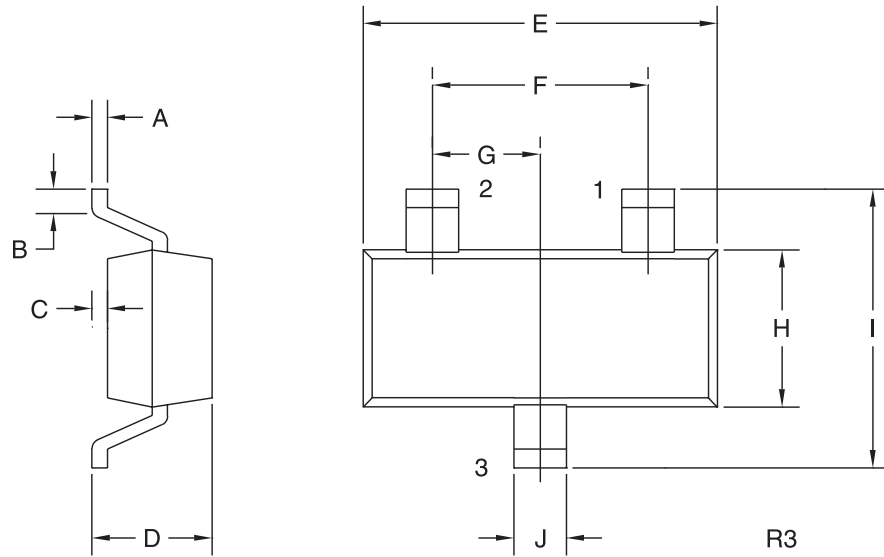
**UNIT**

mW  
 $^{\circ}\text{C}$   
 $^{\circ}\text{C/W}$

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$ ),  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  FOR ALL TYPES.

| TYPE NO.  | ZENER VOLTAGE<br>V <sub>Z</sub> @ I <sub>ZT</sub> |       | TEST CURRENT | MAXIMUM ZENER IMPEDANCE |                                   |                                   | MAXIMUM REVERSE CURRENT         |                 | MAXIMUM ZENER CURRENT | MAXIMUM ZENER VOLTAGE TEMPERATURE COEFFICIENT | MARKING CODE |
|-----------|---------------------------------------------------|-------|--------------|-------------------------|-----------------------------------|-----------------------------------|---------------------------------|-----------------|-----------------------|-----------------------------------------------|--------------|
|           | MIN                                               | MAX   |              | I <sub>ZT</sub>         | Z <sub>ZT</sub> @ I <sub>ZT</sub> | Z <sub>ZK</sub> @ I <sub>ZK</sub> | I <sub>R</sub> @ V <sub>R</sub> | I <sub>ZM</sub> |                       |                                               |              |
|           | VOLTS                                             | VOLTS |              | mA                      | Ω                                 | Ω                                 | mA                              | μA              |                       | VOLTS                                         |              |
| CMPZDA3V6 | 3.4                                               | 3.8   | 5.0          | 95                      | 600                               | 1.0                               | 2.0                             | 1.0             | 45                    | -0.06                                         | WW7          |
| CMPZDA3V9 | 3.7                                               | 4.1   | 5.0          | 90                      | 600                               | 1.0                               | 2.0                             | 1.0             | 43                    | -0.06                                         | WW8          |
| CMPZDA4V3 | 4.0                                               | 4.6   | 5.0          | 90                      | 600                               | 1.0                               | 1.0                             | 1.0             | 40                    | -0.05                                         | WW9          |
| CMPZDA4V7 | 4.4                                               | 5.0   | 5.0          | 80                      | 500                               | 1.0                               | 3.0                             | 2.0             | 38                    | -0.03                                         | ZZ1          |
| CMPZDA5V1 | 4.8                                               | 5.4   | 5.0          | 60                      | 480                               | 1.0                               | 2.0                             | 2.0             | 35                    | 0.02                                          | ZZ2          |
| CMPZDA5V6 | 5.2                                               | 6.0   | 5.0          | 40                      | 400                               | 1.0                               | 1.0                             | 2.0             | 32                    | 0.03                                          | ZZ3          |
| CMPZDA6V2 | 5.8                                               | 6.6   | 5.0          | 10                      | 150                               | 1.0                               | 3.0                             | 4.0             | 28                    | 0.04                                          | ZZ4          |
| CMPZDA6V8 | 6.4                                               | 7.2   | 5.0          | 15                      | 80                                | 1.0                               | 2.0                             | 4.0             | 25                    | 0.05                                          | ZZ5          |
| CMPZDA7V5 | 7.0                                               | 7.9   | 5.0          | 15                      | 80                                | 1.0                               | 1.0                             | 5.0             | 23                    | 0.05                                          | ZZ6          |
| CMPZDA8V2 | 7.7                                               | 8.7   | 5.0          | 15                      | 80                                | 1.0                               | 0.7                             | 5.0             | 21                    | 0.06                                          | ZZ7          |
| CMPZDA9V1 | 8.5                                               | 9.6   | 5.0          | 15                      | 100                               | 1.0                               | 0.5                             | 6.0             | 18                    | 0.06                                          | ZZ8          |
| CMPZDA10V | 9.4                                               | 10.6  | 5.0          | 20                      | 150                               | 1.0                               | 0.2                             | 7.0             | 16                    | 0.07                                          | ZZ9          |
| CMPZDA11V | 10.4                                              | 11.6  | 5.0          | 20                      | 150                               | 1.0                               | 0.1                             | 8.0             | 15                    | 0.07                                          | YY1          |
| CMPZDA12V | 11.4                                              | 12.7  | 5.0          | 25                      | 150                               | 1.0                               | 0.1                             | 8.0             | 13                    | 0.07                                          | YY2          |
| CMPZDA13V | 12.4                                              | 14.1  | 5.0          | 30                      | 170                               | 1.0                               | 0.1                             | 8.0             | 12                    | 0.08                                          | YY3          |
| CMPZDA15V | 13.8                                              | 15.6  | 5.0          | 30                      | 200                               | 1.0                               | 0.05                            | 10.5            | 11                    | 0.08                                          | YY4          |
| CMPZDA16V | 15.3                                              | 17.1  | 5.0          | 40                      | 200                               | 1.0                               | 0.05                            | 11.2            | 10                    | 0.08                                          | YY5          |
| CMPZDA18V | 16.8                                              | 19.1  | 5.0          | 45                      | 225                               | 1.0                               | 0.05                            | 12.6            | 9.2                   | 0.08                                          | YY6          |
| CMPZDA20V | 18.8                                              | 21.2  | 5.0          | 55                      | 225                               | 1.0                               | 0.05                            | 14.0            | 8.3                   | 0.08                                          | YY7          |
| CMPZDA22V | 20.8                                              | 23.3  | 5.0          | 55                      | 250                               | 1.0                               | 0.05                            | 15.4            | 7.6                   | 0.09                                          | YY8          |
| CMPZDA24V | 22.8                                              | 25.6  | 5.0          | 70                      | 250                               | 1.0                               | 0.05                            | 16.8            | 7.0                   | 0.09                                          | YY9          |
| CMPZDA27V | 25.1                                              | 28.9  | 2.0          | 80                      | 300                               | 0.5                               | 0.05                            | 18.9            | 6.2                   | 0.09                                          | W10          |
| CMPZDA30V | 28.0                                              | 32.0  | 2.0          | 80                      | 300                               | 0.5                               | 0.05                            | 21.0            | 5.6                   | 0.09                                          | W11          |
| CMPZDA33V | 31.0                                              | 35.0  | 2.0          | 80                      | 325                               | 0.5                               | 0.05                            | 23.1            | 5.0                   | 0.09                                          | W12          |

# **SOT-23 CASE - MECHANICAL OUTLINE**



| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.003  | 0.007 | 0.08        | 0.18 |
| B          | 0.006  | -     | 0.15        | -    |
| C          | -      | 0.005 | -           | 0.13 |
| D          | 0.035  | 0.043 | 0.89        | 1.09 |
| E          | 0.110  | 0.120 | 2.80        | 3.05 |
| F          | 0.075  |       | 1.90        |      |
| G          | 0.037  |       | 0.95        |      |
| H          | 0.047  | 0.055 | 1.19        | 1.40 |
| I          | 0.083  | 0.098 | 2.10        | 2.49 |
| J          | 0.014  | 0.020 | 0.35        | 0.50 |

SOT-23 (REV: R3)

R3 ( 28-Mar 2001)